

✓ 4-22-85

85 02001

INSTITUTE OF GOVERNMENTAL  
STUDIES LIBRARY

APR 15 1985

UNIVERSITY OF CALIFORNIA

August, 1976

# Circulation Element Background Report



huntington beach planning department



85-02001

August, 1976

Circulation Element  
Background Report



huntington beach planning department



## Summary

### Circulation Element Background Report

The Circulation Element Background Report focuses on the City's (1) arterial streets and highways, (2) public transportation modes and services, (3) water transportation, and (4) air transportation. Goals and objectives are established for each transportation category and a recommended courses of action are proposed.

#### Goals and Policies Statement

The following goal and policy statements provide the direction necessary for the City to improve the mobility of its residents.

##### Goal

To provide a multi-mode transportation system that ensures the safe and efficient movement of people and goods.

##### Policy

- a. Develop a system of arterial streets and highways that ensures the safe and efficient movement of people and goods.
- b. Support the establishment of public transportation systems within the City that are directed toward meeting the mobility needs of the community.
- c. Provide adequate maintenance and protection of existing waterways as recreational transportation facilities.
- d. Participate with Federal, State and County agencies in studying the advantages and disadvantages of developing navigable waterways and an ocean access point into Bolsa Chica Bay.
- e. Provide adequate truck and rail service to industrial and commercial areas while providing minimum disturbance to residential areas.



- f. Support the development of general aviation facilities in northwest Orange County that reflect the needs of the community.
- g. Provide a transportation system that is consistent with efforts to minimize adverse environmental and aesthetic effects.
- h. Provide non-motorized transportation facilities, especially bike trails, pedestrian trails, equestrian trails and jogging trails.

#### Arterial Streets and Highways

The arterial streets and highways analysis presented in this document is based on traffic studies carried out by a number of traffic consulting firms. These studies were of a limited nature and did not investigate the traffic needs of the entire community. There also has been a number of changes in land use designations throughout the City since many of these traffic studies were conducted. Also, the unincorporated territory known as the Bolsa Chica has no comprehensive land use plan, making it premature to project traffic patterns or volumes within this area.

The following recommendations are designed to improve future circulation patterns within the City:

#### Recommendations

1. Adopt the proposed Circulation Plan of Arterial Streets and Highways to replace the existing Master Plan of Arterial Streets and Highways. (Figure 3-10)
2. Conduct a feasibility study in cooperation with the City's Data Processing Staff to determine the cost/benefits that could be derived from instituting a computerized traffic analysis of the City's entire arterial street system.
3. Revise the City's Select Street Map to reflect those arterial streets that are shown on the proposed Circulation Plan of Arterial Streets and Highways.
4. Provide adequate ingress and egress to industrial and commercial land uses as well as insure that residential areas are protected.



## Public Transportation

There has been a renewed interest in public transportation modes and services. This renewed interest is the result of increases in the cost of gasoline, as well as increased cost of purchasing and maintaining private automobiles. Also there are individuals and groups within the community that are unable to afford private transportation and are looking to public transportation to provide them their mobility.

The public transportation service in the City of Huntington Beach has improved tremendously within the last few years. As indicated in this background report, many new bus routes have penetrated the City and a temporary Park-N-Ride facility has been established. There are still many service improvements that are needed. Working closely with OCTD to implement service improvements will assure the City of Huntington Beach of providing its residents with an effective as well as balanced transportation system.

## Recommendations

### Bus Programs

1. Continue to work with OCTD in support of expanding the long haul fixed bus route service into the City.
2. Encourage OCTD to provide fixed bus route service within the City with reduced headway times.
3. Working with OCTD, undertake a land use feasibility study for a future bus terminal site within Huntington Beach.

### Park-N-Ride Program

1. Work with OCTD in carrying out a feasibility study for the establishment of a permanent Park-N-Ride facility in the City.
2. Encourage OCTD to provide jitney service from the Park-N-Ride facility to City employment centers.



#### Dial-A-Ride Program

1. Pursue the Dial-A-Ride program in order to provide residents with an economical and personalized transportation service.

#### Community Fixed Route Program

1. Pursue the community fixed route bus service only if the Dial-A-Ride program is discontinued by OCTD.

#### Mass Rapid Transit

1. Work with OCTD, Southern Pacific Railroad and adjoining property owners to protect the Southern Pacific Railroad line that traverses the City as a future mass rapid transit corridor.
2. Work in conjunction with OCTD and the Multi-Modal Transportation Committee in the preparation of a feasibility study for the establishment of a multi-modal transportation facility in the City of Huntington Beach.
3. Actively monitor the preparation of the Orange County Multi-Modal Transportation Study.

#### Water Transportation

The Huntington Harbour-Anaheim Bay marine development serves the recreational needs of many boating enthusiasts in the City of Huntington Beach. It is important that the existing waterways are protected to ensure a high level of environmental quality and that planning of any future waterways within Bolsa Chica Bay protects the unique wetlands and estuaries of the area. The following recommendations are designed to protect the recreational character of the existing waterways, and to ensure that any future water-oriented development within the unincorporated Bolsa Chica is comprehensively planned.

#### Recommendations

1. Monitor the activities of State agencies concerning future ocean access points into the Sunset-Bolsa Chica Bay.
2. Participate with State and County agencies in the planning of future waterways in Bolsa Chica Bay.
3. Require a comprehensive plan of any water-oriented development that may occur within the areas



surrounding Bolsa Chica Bay upon the area being incorporated into the City.

### Airport Facilities

The Circulation Element Background Report discusses past attempts to provide improved airport facilities in Huntington Beach. It points out the importance of general aviation airports in Southern California as they relate to the SCAG Regional Airport Plan. Meadowlark Airport is part of the SCAG Regional Airport Plan but is identified as having limited development potential.

Rapid land development in the City has lessened the potential for future airport sites. Airport facilities depend upon sufficient land to provide enough clearance to assure a minimum amount of disturbance to residential and commercial land uses. Potential development of heliports and helistops in Huntington Beach is also discussed in the text of the report. With increased concern for providing alternative modes of transportation, the helicopter has the potential of meeting limited transportation needs of both the private and public sectors. Such transportation needs include, but are not limited to, police patrol, air ambulance, executive and short distance business trips and public transportation services. As helicopters increase in use, the need for City development standards for heliports will become more apparent.

### Recommendations

1. Support development of general aviation airport facilities within northwest Orange County that reflect the needs of the Community.
2. Adopt specific heliport/helistops development guidelines based upon the FAA Heliport Design Guide, for incorporation into the City Ordinance Code.





Digitized by the Internet Archive  
in 2024 with funding from  
State of California and California State Library

<https://archive.org/details/C124880815>

TABLE OF CONTENTS  
CIRCULATION ELEMENT BACKGROUND REPORT

SECTION	PAGE
1.0 INTENT AND PURPOSE	1
1.1 State Authorization and Requirements	2
1.2 Council on Intergovernmental Relations (CIR Guidelines)	2
2.0 GOALS AND POLICIES	5
2.1 Function in the Planning Process	5
2.2 Goals and Policies Statement	7
3.0 ARTERIAL STREETS AND HIGHWAY SYSTEM	9
3.1 Existing Conditions of the Arterial Streets and Highways System	10
3.2 Constraints	15
3.3 Arterial Streets and Highways	19
3.4 Circulation Plans of Arterial Streets and Highways	25
3.5 Truck Routes	33
4.0 PUBLIC TRANSPORTATION MODES AND SERVICES	35
4.1 Individual and Group Mobility Needs	36
4.2 Existing Public Transportation Modes and Services	42
4.3 Southern Pacific Railroad Right-of-Way	46
4.4 Orange County Multi-Modal Transportation Study	47
4.5 Minor Transportation Service within the City	47
5.0 WATER TRANSPORTATION	51
5.1 Existing Water Transportation	51
5.2 Ocean Access	58
5.3 Signal Properties, Inc. - Bolsa Chica Bay Master Plan	58
5.4 Bolsa Chica Bay - State Resources Agency	58
5.5 California Coastal Plan	58
5.6 Water Capacity	61
5.7 The Huntington Harbour Waterway Environmental Impact Report	62
6.0 AIRPORTS	63
6.1 SCAG Regional Airport System	64
6.2 Meadowlark Airport	65





SECTION	PAGE
6.3 Airport Studies	67
6.4 Heliports	69
6.5 Future of Air Transportation in Huntington Beach	70
7.0 RECOMMENDATIONS	73
7.1 Arterial Streets and Highways	74
7.2 Public Transportation Modes and Services	74
7.3 Water Transportation	76
7.4 Airport Facilities	76





## TABLE OF FIGURES

### Number

2-1 Goals and Policies

3-1 Design Criteria for Arterial Streets and Highways  
3-2 Master Plan of Arterial Streets and Highways  
3-3 Typical Arterial Sections  
3-4 Traffic Flow Map and Deficient Streets  
3-5 Select System  
3-6 Traffic Study Alternative 2-C Talbert Deletion  
3-7 Peak Hour - Ultimate Development  
3-8 24 Hour ADT - Ultimate Development  
3-9 General Plan Amendment 76-1A  
3-10 Circulation Plan of Arterial Streets and Highways  
3-11 Summary of Proposed Circulation Changes  
3-12 Designated Truck Routes

4-1 Increase of Elderly Within the Community since 1965  
4-2 Age 65 or Older by Census Tract  
4-3 Under Age 18 by Census Tract  
4-4 Census Tracts with High Concentrations of Very Low Income Families  
4-5 Lower Income Households by Family Size 1975  
4-6 O.C.T.D. Bus Routes  
4-7 Park and Ride/Freeway Bus System  
4-8 Orange County Transit Plan T2E Modified "A"

5-1 Sunset-Bolsa Chica Gap  
5-2 Huntington Harbour  
5-3 Typical Section Channel Bulkhead  
5-4 Inventory of Existing Boat Slips in Huntington Harbour  
5-5 Signal Landmark Preliminary Master Plan of Bolsa Chica  
5-6 State Resources Agency Conceptual Plan A  
5-7 State Resources Agency Conceptual Plan B

6-1 General Aviation Based Aircraft Forecasts by County  
6-2 Meadowlark Airport and Existing Land Uses  
6-3 Heliport and Helistop Locations





**section 1**  
**introduction**





## 1.0

### INTENT AND PURPOSE

The purpose of the Circulation Element Background Report is to present a comprehensive transportation plan for the City of Huntington Beach. Increased expense of purchasing and maintaining private automobiles has brought about a growing awareness by the public for the need of alternative modes of transportation. The Circulation Element Background Report is directed toward providing a plan for balancing the transportation modes available to the public.

The report analyzes the arterial streets and develops a plan that addresses the varied arterial problems that confront the City; also, the report analyzes the public transportation needs of the community. The elderly, the young, handicapped and low income households look to public transportation to provide them their mobility. Also, employees who commute to distant employment centers have been identified as potential patrons for public transportation. Air and water transportation needs of the community are also addressed. The discussion of existing waterways in Huntington Harbour, as well as potential waterways within the Bolsa Chica Bay, centers on recreational boating needs and access to the ocean. Air transportation within Huntington Beach focuses on the potentials of existing and future air facilities.



## 1.1 State Authorization and Requirements

The legal responsibility and guidance for the preparation of the Circulation Element of the General Plan is provided by the State Government Code Section 65302(b). This section of the Government Code states that a Circulation Element shall consist of:

"the general location and extent of the existing and proposed major thoroughfares, transportation routes, terminals and facilities, all correlated within the Land Use Element of the Plan."

## 1.2 Council on Intergovernmental Relations (CIR) Guidelines

Additional guidelines for preparing the Circulation Element are provided by the Council on Intergovernmental Relations.

### 1.2.1 The Scope and Nature of the Circulation Element.

- A. Identification and analysis of circulation needs and issues.
- B. A statement of goals, objectives and policies based on the total circulation needs of the community, including priorities among modes and routes and distinguishing among short, middle and long term periods of implementation.
- C. A diagram, map, or other graphic representation showing the proposed circulation system.
- D. A description of the proposed circulation system and the interrelationships among system parts.
- E. Standards and criteria for the location design, operation and levels of service of circulation facilities.
- F. A guide to the implementation of the circulation system.

### 1.2.2 Suggested Methodology:

- A. Inventory of circulation issues and problems.
- B. Research and analysis
  - (1) Population. Its current and future circulation needs, desires and modal choices; its composition and distribution relating to specific needs, e.g., transit needs of children and older persons.



- (2) Community needs. Including the needs for access and mobility; for a sense of identity; for safety, efficiency and ease; consideration of the impact of the circulation system on residential livability; consideration of the growth inducing impact of circulation system.
- (3) Economic Factors: The location, intensity and specialization of economic activities and their required levels and types of services, present inadequacies, and the ability of jurisdictions to finance new or improved services.
- (4) Physical Factors: Consideration to minimize the impact on the environment particularly the soils, hydrology and air quality.
- (5) Circulation System: Determine adequacy of the present system.
  - C. Develop circulation policies and proposals.
  - D. Evaluate alternative circulation system.
  - E. Set standards for the coordination, routing, design, operation and service levels of each circulation mode.
  - F. Establish a time schedule and priorities for implementation of the circulation system.

While the suggested CIR Guidelines and methodology were not rigidly followed, they did provide a necessary direction for analyzing the circulation needs of the community. Much of what follows is a direct result of these proposed guidelines, thus providing the community with its first comprehensive analysis of its transportation system.





**section 2  
goals & policies**





## 2.0 GOALS AND POLICIES

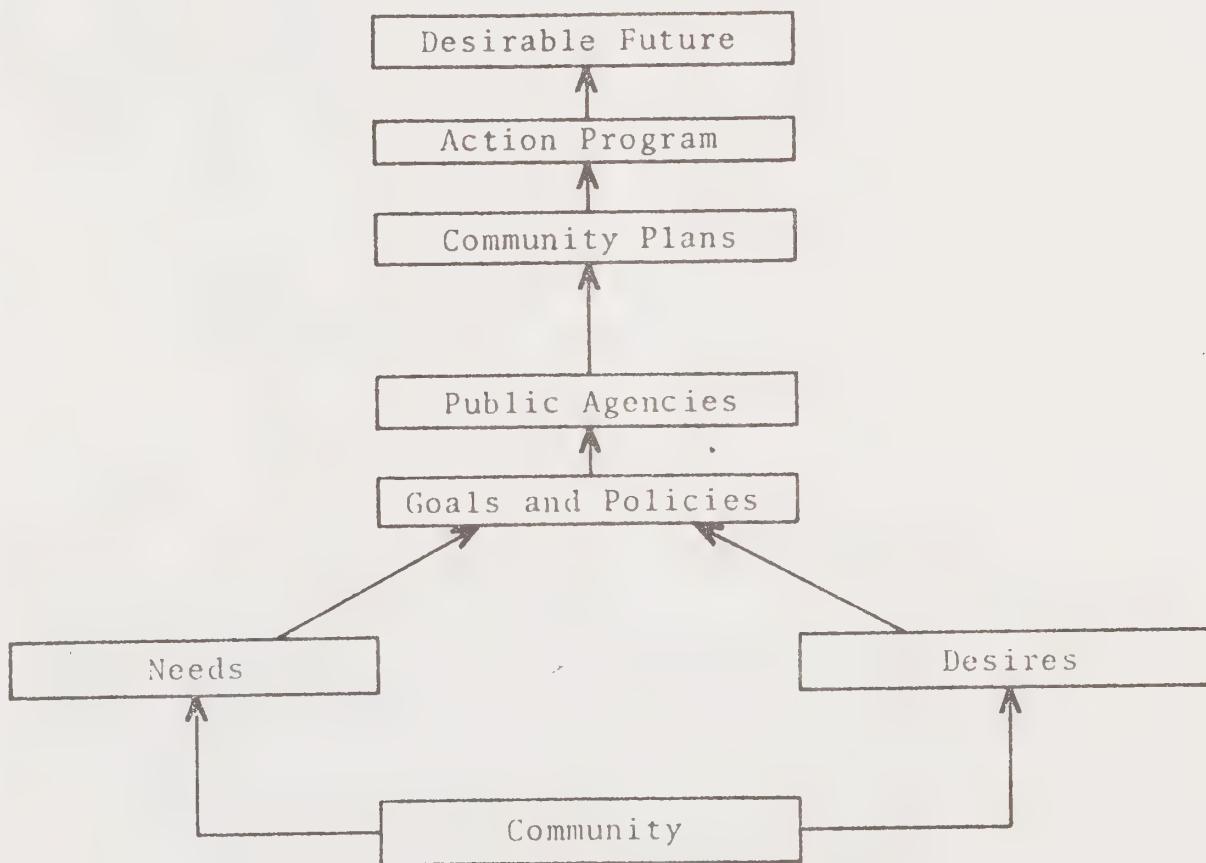
The development of goals and policies is the most fundamental aspect of the planning process. A goal is the expression of an ultimate ideal to be achieved. It is the end result toward which efforts are directed. While a goal represents where to go, a policy is a directive on how to get there. It implies a realistic method and a general guide by which goals can be obtained. Because they describe in general terms both the community's destination and the most desirable route for arriving at it, these statements of community purpose and intent direct the selection of the most desirable future for the City from the many alternatives available. The role of goals and policies in the planning process is indicated in Figure 2-1.

### 2.1 Function in the Planning Process

Huntington Beach adopted, in January, 1974, a Policy Plan prepared by a Council-appointed Citizens Advisory Committee under the direction of the Planning Department. This document carefully assessed the attitudes of the community, including the City's transportation needs. Since its publication, there have been



FIGURE 2-1  
GOALS AND POLICIES  
IN THE PLANNING PROCESS



many occurrences in the field of transportation planning that have affected the goals and objectives presented in the Policy Plan. The goals and objectives which follow expand upon those presented in the Policy Plan identifying new areas that will influence future Development of the community's transportation system.

## 2.2 Goals and Policies Statement

The following goal and policy statements provide the direction that is necessary in order to maximize the mobility needs of the community.

### 2.2.1 Goal

Provide a multi-mode transportation system that ensures the safe and efficient movement of people and goods.

#### Policy

- a. Develop a system of arterial streets and highways that ensures the safe and efficient movement of people and goods.
- b. Support the establishment of public transportation systems within the City that are directed toward meeting the mobility needs of the community.
- c. Provide adequate maintenance and protection of existing waterways as recreational transportation facilities.
- d. Participate with Federal, State and County agencies in studying the advantages and disadvantages of developing an ocean access into and navigable waterways within Bolsa Chica Bay.
- e. Provide adequate truck and rail service to industrial and commercial areas while providing minimum disturbance to residential areas.
- f. Support the development of general aviation facilities in northwest Orange County that reflect the needs of the community.
- g. Provide a transportation system that is consistent with efforts to minimize adverse environmental and aesthetic effects.
- h. Provide non-motorized transportation facilities, especially bike trails, pedestrian trails, equestrian trails and jogging trails.





**section 3**  
**arterial streets**  
**& highways**





### 3.0

### ARTERIAL STREETS AND HIGHWAY SYSTEM

The Huntington Beach Arterial Street and Highway System is dominated by a grid circulation pattern. Major arterials and primary streets divide most of Huntington Beach into uniform square mile sections, the exception being the older, developed sections of the City. Secondary streets branch off major and primary arterials and provide access into residential areas; they further divide the City into quarter-mile sections where residential districts become physically defined. The City's arterial street system is designed to move large volumes of intercity traffic, collecting and distributing it directly to and between major land uses such as employment centers, recreational uses, commercial uses, and residential uses.



### 3.1 Existing Conditions

#### 3.1.1 The Master Plan of Arterial Streets and Highways

The City Council adopted the initial Master Plan of Arterial Streets and Highways in October 1963. The Master Plan graphically depicts the community's existing and proposed arterial street system and classifies it according to standards established under the Arterial Highway Funding Program Specifications (A.H.F.P.S.) (Figure 3-1). These specifications group the arterial streets into classifications of freeway and major, primary and secondary streets. These specifications also categorize the arterial streets according to ultimate right-of-way widths, number of travel lanes and the average daily traffic design capacity.

Figure 3-1

#### A.H.F.P.S. DESIGN CRITERIA FOR ARTERIAL STREETS AND HIGHWAYS

Road Classification	Right of Way, Feet	Width Curb to Curb, Feet	No. of Lanes	Median Width, Feet	Approximate Capacity ADT*
Freeway	Variable	Variable	4	Variable	55,000
	Variable	Variable	6	Variable	100,000
	Variable	Variable	8	Variable	135,000
Major	120	104	6	14-18	45,000
Primary	100	84	4	16-20	30,000
Secondary	80	64	4	0	20,000
ADT* Average Daily Traffic			2		5,000

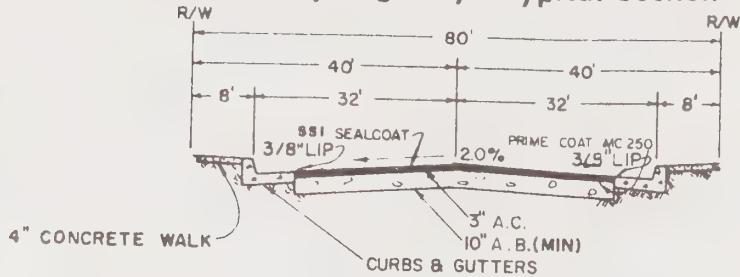
Since the approval of the initial Master Plan of Arterial Streets and Highways, a number of revisions have been adopted by the City Council. Figure 3-2 depicts the most recent Master Plan of Arterial Streets and Highways, including the traffic concerns adopted by City Council in March, 1976, as part of General Plan Amendment 76-1 A and B.

The Circulation Element, when adopted by the City Council, will have incorporated into it the Master Plan of Arterial Streets and Highways, thus providing a guide for the ultimate development of the community's arterial street and highway system.

## AMENDMENTS

PLANNING COMMISSION	CITY COUNCIL	NUMBER
1	1	1963
2	2	1963
3	3	1963
4	4	1963
5	5	1963
6	6	1963
7	7	1963
8	8	1963
9	9	1963
10	10	1963
11	11	1963
12	12	1963
13	13	1963
14	14	1963
15	15	1963
16	16	1963
17	17	1963
18	18	1963
19	19	1963
20	20	1963
21	21	1963
22	22	1963
23	23	1963
24	24	1963
25	25	1963
26	26	1963
27	27	1963
28	28	1963
29	29	1963
30	30	1963
31	31	1963
32	32	1963
33	33	1963
34	34	1963
35	35	1963
36	36	1963
37	37	1963
38	38	1963
39	39	1963
40	40	1963
41	41	1963
42	42	1963
43	43	1963
44	44	1963
45	45	1963
46	46	1963
47	47	1963
48	48	1963
49	49	1963
50	50	1963
51	51	1963
52	52	1963
53	53	1963
54	54	1963
55	55	1963
56	56	1963
57	57	1963
58	58	1963
59	59	1963
60	60	1963
61	61	1963
62	62	1963
63	63	1963
64	64	1963
65	65	1963
66	66	1963
67	67	1963
68	68	1963
69	69	1963
70	70	1963
71	71	1963
72	72	1963
73	73	1963
74	74	1963
75	75	1963
76	76	1963
77	77	1963
78	78	1963
79	79	1963
80	80	1963
81	81	1963
82	82	1963
83	83	1963
84	84	1963
85	85	1963
86	86	1963
87	87	1963
88	88	1963
89	89	1963
90	90	1963
91	91	1963
92	92	1963
93	93	1963
94	94	1963
95	95	1963
96	96	1963
97	97	1963
98	98	1963
99	99	1963
100	100	1963
101	101	1963
102	102	1963
103	103	1963
104	104	1963
105	105	1963
106	106	1963
107	107	1963
108	108	1963
109	109	1963
110	110	1963
111	111	1963
112	112	1963
113	113	1963
114	114	1963
115	115	1963
116	116	1963
117	117	1963
118	118	1963
119	119	1963
120	120	1963
121	121	1963
122	122	1963
123	123	1963
124	124	1963
125	125	1963
126	126	1963
127	127	1963
128	128	1963
129	129	1963
130	130	1963
131	131	1963
132	132	1963
133	133	1963
134	134	1963
135	135	1963
136	136	1963
137	137	1963
138	138	1963
139	139	1963
140	140	1963
141	141	1963
142	142	1963
143	143	1963
144	144	1963
145	145	1963
146	146	1963
147	147	1963
148	148	1963
149	149	1963
150	150	1963
151	151	1963
152	152	1963
153	153	1963
154	154	1963
155	155	1963
156	156	1963
157	157	1963
158	158	1963
159	159	1963
160	160	1963
161	161	1963
162	162	1963
163	163	1963
164	164	1963
165	165	1963
166	166	1963
167	167	1963
168	168	1963
169	169	1963
170	170	1963
171	171	1963
172	172	1963
173	173	1963
174	174	1963
175	175	1963
176	176	1963
177	177	1963
178	178	1963
179	179	1963
180	180	1963
181	181	1963
182	182	1963
183	183	1963
184	184	1963
185	185	1963
186	186	1963
187	187	1963
188	188	1963
189	189	1963
190	190	1963
191	191	1963
192	192	1963
193	193	1963
194	194	1963
195	195	1963
196	196	1963
197	197	1963
198	198	1963
199	199	1963
200	200	1963
201	201	1963
202	202	1963
203	203	1963
204	204	1963
205	205	1963
206	206	1963
207	207	1963
208	208	1963
209	209	1963
210	210	1963
211	211	1963
212	212	1963
213	213	1963
214	214	1963
215	215	1963
216	216	1963
217	217	1963
218	218	1963
219	219	1963
220	220	1963
221	221	1963
222	222	1963
223	223	1963
224	224	1963
225	225	1963
226	226	1963
227	227	1963
228	228	1963
229	229	1963
230	230	1963
231	231	1963
232	232	1963
233	233	1963
234	234	1963
235	235	1963
236	236	1963
237	237	1963
238	238	1963
239	239	1963
240	240	1963
241	241	1963
242	242	1963
243	243	1963
244	244	1963
245	245	1963
246	246	1963
247	247	1963
248	248	1963
249	249	1963
250	250	1963
251	251	1963
252	252	1963
253	253	1963
254	254	1963
255	255	1963
256	256	1963
257	257	1963
258	258	1963
259	259	1963
260	260	1963
261	261	1963
262	262	1963
263	263	1963
264	264	1963
265	265	1963
266	266	1963
267	267	1963
268	268	1963
269	269	1963
270	270	1963
271	271	1963
272	272	1963
273	273	1963
274	274	1963
275	275	1963
276	276	1963
277	277	1963
278	278	1963
279	279	1963
280	280	1963
281	281	1963
282	282	1963
283	283	1963
284	284	1963
285	285	1963
286	286	1963
287	287	1963
288	288	1963
289	289	1963
290	290	1963
291	291	1963
292	292	1963
293	293	1963
294	294	1963
295	295	1963
296	296	1963
297	297	1963
298	298	1963
299	299	1963
300	300	1963
301	301	1963
302	302	1963
303	303	1963
304	304	1963
305	305	1963
306	306	1963
307	307	1963
308	308	1963
309	309	1963
310	310	1963
311	311	1963
312	312	1963
313	313	1963
314	314	1963
315	315	1963
316	316	1963
317	317	1963
318	318	1963
319	319	1963
320	320	1963
321	321	1963
322	322	1963
323	323	1963
324	324	1963
325	325	1963
326	326	1963
327	327	1963
328	328	1963
329	329	1963
330	330	1963
331	331	1963
332	332	1963
333	333	1963
334	334	1963
335	335	1963
336	336	1963
337	337	1963
338	338	1963
339	339	1963
340	340	1963
341	341	1963
342	342	1963
343	343	1963
344	344	1963
345	345	1963
346	346	1963
347	347	1963
348	348	1963
349	349	1963
350	350	1963
351	351	1963
352	352	1963
353	353	1963
354	354	1963
355	355	1963
356	356	1963
357	357	1963
358	358	1963
359	359	1963
360	360	1963
361	361	1963
362	362	1963
363	363	1963
364	364	1963
365	365	1963
366	366	1963
367	367	1963
368	368	1963
369	369	1963
370	370	1963
371	371	1963
372	372	1963
373	373	1963
374	374	1963
375	375	1963
376	376	1963
377	377	1963
378		

### Secondary Highway - Typical Section



#### COST OF NEW CONSTRUCTION

##### SECONDARY

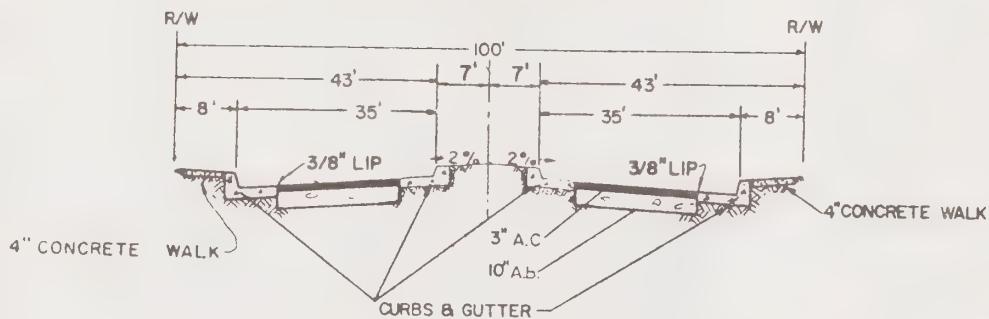
Street Trees & Lights	6.00 per L.F.
Curb & Gutter	8.80 per L.F.
Excavation	11.48 per L.F.
Sidewalk	9.68 per L.F.
3" AC/10" AB	41.40 per L.F.
Liquid Coats	1.40 per L.F.

Total Cost

78.76 per L.F.

Cost Per Mile  
415,853.00

### Primary Highway - Typical Section



##### PRIMARY

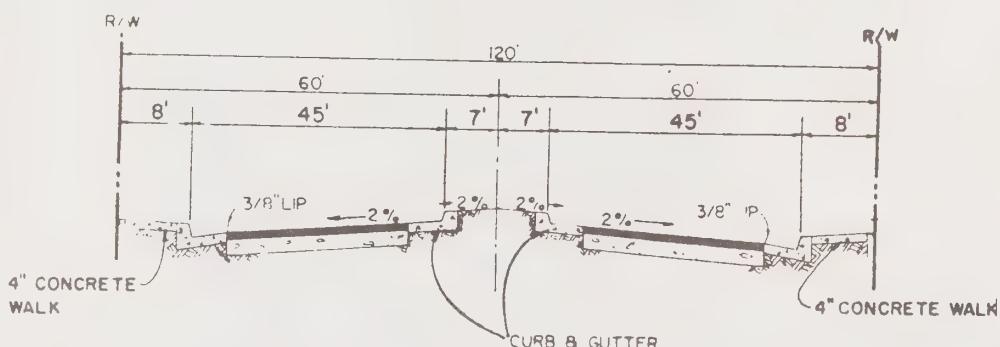
Street Trees & Lights	6.00 per L.F.
Curb & Gutter	15.01 per L.F.
Excavation	17.60 per L.F.
Sidewalk	9.68 per L.F.
3" AC/10" AB	43.20 per L.F.
Liquid Coats	1.47 per L.F.
Median Landscape	12.12 per L.F.

Total Cost

105.08 per L.F.

Cost Per Mile  
554,822.00

### Major Arterial Highway - Typical Section



##### MAJOR

Street Trees & Lights	6.00 per L.F.
Curb & Gutter	18.36 per L.F.
Excavation	17.60 per L.F.
Sidewalk	9.68 per L.F.
3" AC/10" AB	57.20 per L.F.
Liquid Coats	1.94 per L.F.
Median Landscape	12.12 per L.F.

Total Cost

122.90 per L.F.

Cost Per Mile  
648,912.00

Figure 3-3



### Typical Arterial Sections

huntington beach planning department

### 3.1.2 Traffic Volume

To assure that the arterial streets and highways are adequate to meet the present traffic demands placed on them, the Public Works Department conducts an annual traffic survey to determine the average daily traffic volume along the City's arterial streets. The most current survey was conducted in July, 1976. Figure 3-4, Traffic Flow Map, shows the resulting traffic flow volume and existing arterial deficiencies. The deficiencies were identified according to present street conditions and not according to ultimate right-of-way widths as provided by the Arterial Highway Funding Program Specifications. These deficiencies can be reduced or eliminated by construction of streets to their ultimate right-of-way width, striping streets that have been built to their ultimate right-of-way or through the establishment of a signalization program. The traffic survey also enables the Planning Department to analyze the Master Plan of Arterial Streets and Highways to assure that the community's street system is adequate to meet present as well as future traffic needs.

### 3.1.3 Select System

The select system of streets enables the City of Huntington Beach to participate in the State Gasoline Tax Program. Resolution 2005 was adopted by the City Council on July 6, 1964 and provided for the establishment of a select system of city streets and county roads for the purpose of expending funds apportioned to the City from the State Highway Fund.

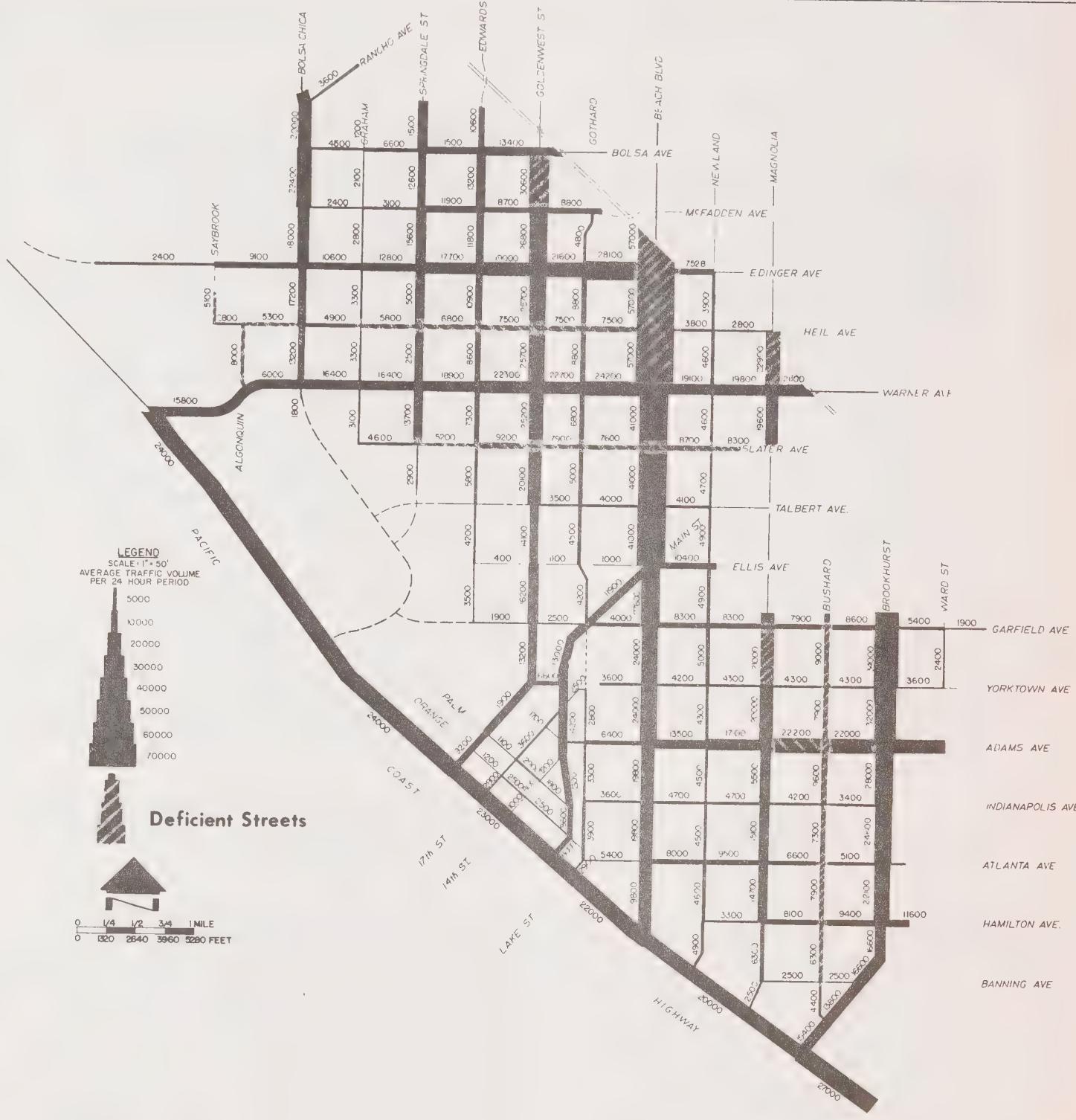
Figure 3-5 shows the adopted select map. (The moneys received from the State Highway Fund are also eligible for use as matching funds by the City when applying for Federal Highway Grants.)

The Select Map has not been updated since its adoption by the City Council. There has been a number of changes to the Master Plan of Arterial Streets and Highways Map that should be reflected on the Select Map. In adopting the Circulation Element of the General Plan, consideration should be given to adopting the Circulation Element's Arterial Streets and Highways Plan as the City's Select System. Adoption would make the City's streets shown on the arterial street and highway plan eligible for receiving funds through the State's Gasoline Tax Program. Also, the select system could be considered for updating concurrently with classification changes on the Circulation Element's arterial streets and highway plan.

### 3.1.4 Public Right-of-Way

Like many developing communities, Huntington Beach requires the dedication of land for public rights-of-way (i.e., streets, highways and alleys) prior to the issuance of building permits.





**Figure 3-4**



# Traffic Flow Map And Deficient Streets

**huntington beach planning department**

Figure 3-5

# CITY OF HUNTINGTON BEACH

SELECT SYSTEM

SUBMITTED FOR CONSIDERATION OF THE  
CALIFORNIA HIGHWAY COMMISSION

## **ARTERIAL FLU<sup>R</sup>E ALIGNMENT COLLECTOR**

**COLLECTOR - FUTURE ALIGNMENT**

**STATE HIGHWAY**

**ARTERIAL**

Connecting Select System routes of contiguous jurisdiction

COLLECTOR

IN FEET  
SCALE





The amount of right-of-way that is required for dedication is determined by (1) the road classification shown on the Master Plan of Arterial Streets and Highways, (2) adopted Precise Plan of Street Alignments, and (3) Street Standards or Requirements prescribed by the Department of Public Works.

Dedication for public right-of-way usually occurs as parcels of land are developed, or at the time major structural modifications take place on already developed parcels. However, the City may find it necessary to improve the street prior to development or re-development taking place. The City may choose to accomplish this in a number of ways. The City may receive title to the needed property through gifts, voluntary dedication, purchase, establishment of an assessment district or through condemnation proceedings.

### 3.1.5 Conclusion

The Master Plan of Arterial Streets and Highways, the Traffic Volume Survey and Analysis, the Select System Map and Public Right-of-Way Dedication are fundamental tools that are used in the planning and development of the City's Arterial Streets and Highways.

In addition to these fundamental tools, there are a number of constraints that need to be identified in order to provide a basis for improving the City's ability to plan and develop the City's arterial street system.

## 3.2 Constraints

### 3.2.1 Transportation Planning

Transportation planning has increased in importance since the inception of the energy crisis. Careful study and planning is required to insure the establishment within the community of economical modes of transportation as well as safe and efficient streets and highways.

The City's transportation planning function is diffused between a number of departments, committees and outside consultants resulting in less than a united front in resolving City transportation issues. A City transportation committee has been established by the City Council as a forum for discussing community transportation needs and as a body that can propose recommendations to the City Council concerning those needs. A committee, such as the transportation committee, is usually of a temporary nature and is established to address the present issues and concerns and is not designed to carry out long-range planning.

Consideration should be given to consolidating the transportation planning activities in one city department. Such



a consolidation would provide a focal point for coordinating transportation planning between various city departments and provide staff personnel to assist the Council-appointed transportation committee in carrying out studies concerning transportation needs.

### 3.2.2 Traffic Studies

Another constraint placed upon the City in its efforts to reach its transportation goals and objectives is its current policies concerning traffic studies. The City has, in the past, required as part of environmental impact reports, traffic analysis of specific developments. These traffic analyses are usually of a limited nature and do not present a picture of the overall effect development has upon the community's arterial streets system.

The City did attempt to have an areawide traffic study prepared in early 1974 by the traffic consulting firm of Herman Kimmel and Associates. The study was limited to the area south of Edinger Avenue and west of Beach Boulevard. The study projected traffic volumes along the City's arterial streets and highways based on parameters prepared by the City's Planning Department.

The study attempted to address several alternatives to the City's arterial street and highway system. Given these alternatives, the study projected traffic volumes along the City's arterial streets and highways. Primarily due to the lack of funds, the significance of the projected traffic volumes were not analyzed, nor were recommended courses of action presented by the consulting firm. However, the Planning Department did analyze the Kimmel traffic volumes comparing them with street design standards and present traffic capacities.

Questions were raised by the Planning Commission and City Council concerning the methodology used in carrying out the Kimmel study. The Planning Department requested an impartial traffic consulting firm, JHK & Associates, to verify the methodology used by Kimmel in arriving at his traffic projections. Discussions with the consultants indicated that the methodology used was generally adequate. The consultants were also asked to verify the traffic volumes that were generated by the Kimmel study. The consulting firm indicated that the projected traffic volumes appeared to be acceptable given the restraints under which the Kimmel study was prepared.



The most current traffic study to be done for the City was carried out in the latter part of 1975 by the consulting firm of JHK & Associates. While this study was also limited in scope, concentrating primarily on the street system leading to and within the Downtown Redevelopment Area, it did provide the City with a complete analysis of the Circulation System within the Study Area. The findings of the study were used in the preparation of General Plan Amendment 76-1A and B. The General Plan Amendment addressed many unresolved circulation issues within the Downtown Area. With the JHK consulting firm's findings as the basis of the General Plan Amendment, the City Council was able to adopt a circulation plan that resolved many of the circulation issues within the Study Area.

The limited nature of the traffic studies found within environmental impact reports and those of the Kimmel and JHK traffic studies point out the need for a more comprehensive traffic analysis of the City's arterial streets and highways. A problem with carrying out piecemeal traffic studies is their short-sightedness in not providing decision-makers with information concerning the effects proposed developments have upon the City's entire street system. Also, limited studies of this nature are frozen in time and are not designed to respond to changing conditions.

### 3.2.3 Land Use Changes

An additional constraint placed on the analysis of the arterial street system is the land use changes that have occurred since the completion of the Kimmel traffic study. Land uses and the arterial street system are dependent upon each other. Each type of land use designation generates a level of vehicular movement along the arterial street system. Likewise, the type of arterial streets that are provided to adjacent properties will determine the level of access to designated land uses. Ideally, a balance is reached that will provide a sufficient type of arterial street for a given type of land use.

Since the Kimmel traffic study there have been a number of land use changes through the zone change process as well as through revisions to the Land Use Element of the General Plan. The effect these changes, as well as future changes, have upon the arterial street system cannot be sufficiently analyzed without a flexible, comprehensive traffic analysis of the City's arterial street system.

#### 3.2.4

##### Realignments

The alignment and realignment of the arterial street and highway system affect the travel routes that are chosen to reach desired destinations. This background report has proposed that certain arterial streets be realigned to provide better access to land use. Increased or decreased traffic volumes that would occur as a result of these proposed realignments have not been sufficiently analyzed since the City presently does not have a comprehensive traffic analysis of the entire City. This also acts as a constraint in reaching the City's transportation goals and objectives.

#### 3.2.5

##### Upgrading Existing Arterial Streets and Highways

Arterial streets that have had dedication and development occur on the adjacent property (Orange Avenue, 5th Street) and now are projected to carry a greater number of vehicles than first anticipated present special problems. The acquisition of additional right-of-way to increase the arterial streets would be costly to the City. Also, such purchases could possibly cause the displacement of some individuals. In such instances restricted parking policies will need to be adopted to assure necessary land access and adequate traffic flow.

#### 3.2.6

##### Conclusion

The constraints that have been discussed under the above headings indicate a need for finding solutions that will reduce or eliminate the obstacles that stand in the way of achieving the City's transportation goal. A policy that would aid in diminishing the effect of these constraints would be to have the City Staff carry out a study to determine the cost/benefits that would result from establishing a comprehensive traffic analysis program. Such a program could provide the City with a computerized



analysis of future traffic conditions along our arterial street system. Also such a program could be developed to analyze the effect new developments and changes in land use patterns would have on the arterial street system. While the initial cost to the City for actual implementation of a computerized Traffic Analysis Program would be substantial (\$30,000 - \$60,000 estimate) a mechanism could be established to offset costs by charging a fee to developers for the computer analysis of their proposed development on the arterial street system.

### 3.3 Arterial Streets and Highways

In preparing the proposed Circulation Plan the following arterial street conditions were examined:

- Road Classification
- Street Alignments
- Street Closures
- Street Abandonment

The analysis of these street conditions were based on (1) present traffic flow counts, (2) Herman Kimmel's Traffic Study (Alternative 2-C Talbert Deletion, Figure 3-6), (3) the JHK Traffic Study of the Downtown Redevelopment Area, (4) traffic studies carried out in conjunction with Environmental Impact Reports and (5) previous discussions by the Planning Commission and City Council concerning the arterial streets system.

#### 3.3.1 Present Traffic Volumes Along the Arterial Streets and Highways

Present traffic volumes were used in the street analyses to identify the arterial streets that (1) carried traffic volumes above design capacity standards, or (2) showed such small volumes of traffic that the question of continuing the alignment as an arterial street was raised.

#### 3.3.2 2-C Talbert Deletion (Herman Kimmel)

This alternative from the Herman Kimmel Traffic Study, showing future traffic volumes along the arterial streets, is based on the following three assumptions:

- No Pacific Coast Freeway (Route 1)
- No Route 39 Freeway
- No rerouting of the Pacific Coast Highway south of Warner Avenue



The traffic volumes shown in Figure 3-6 (2-C Talbert deletion) were analyzed by comparing them to existing traffic capacities along the City's arterial streets and the arterial street design standards. In addition to projected traffic volumes, Figure 3-6 identifies those arterial streets that have projected traffic volumes in excess of the arterial street design standards. What this indicates is that traffic moving along congested arterial streets will use alternative streets to reach their destination point thus avoiding the congestion. For example, Warner Avenue, as shown in Figure 3-6, has a projected ADT that is in excess of the design capacity (45,000 ADT) for a major arterial street. When traffic volumes reach this level or above, motorists will seek alternative east/west arterials, such as Heil, Slater or Ellis Avenues to escape the congestion, thus increasing the traffic volumes along these alternatives.\*

### 3.3.3 JHK and Associates Traffic Study

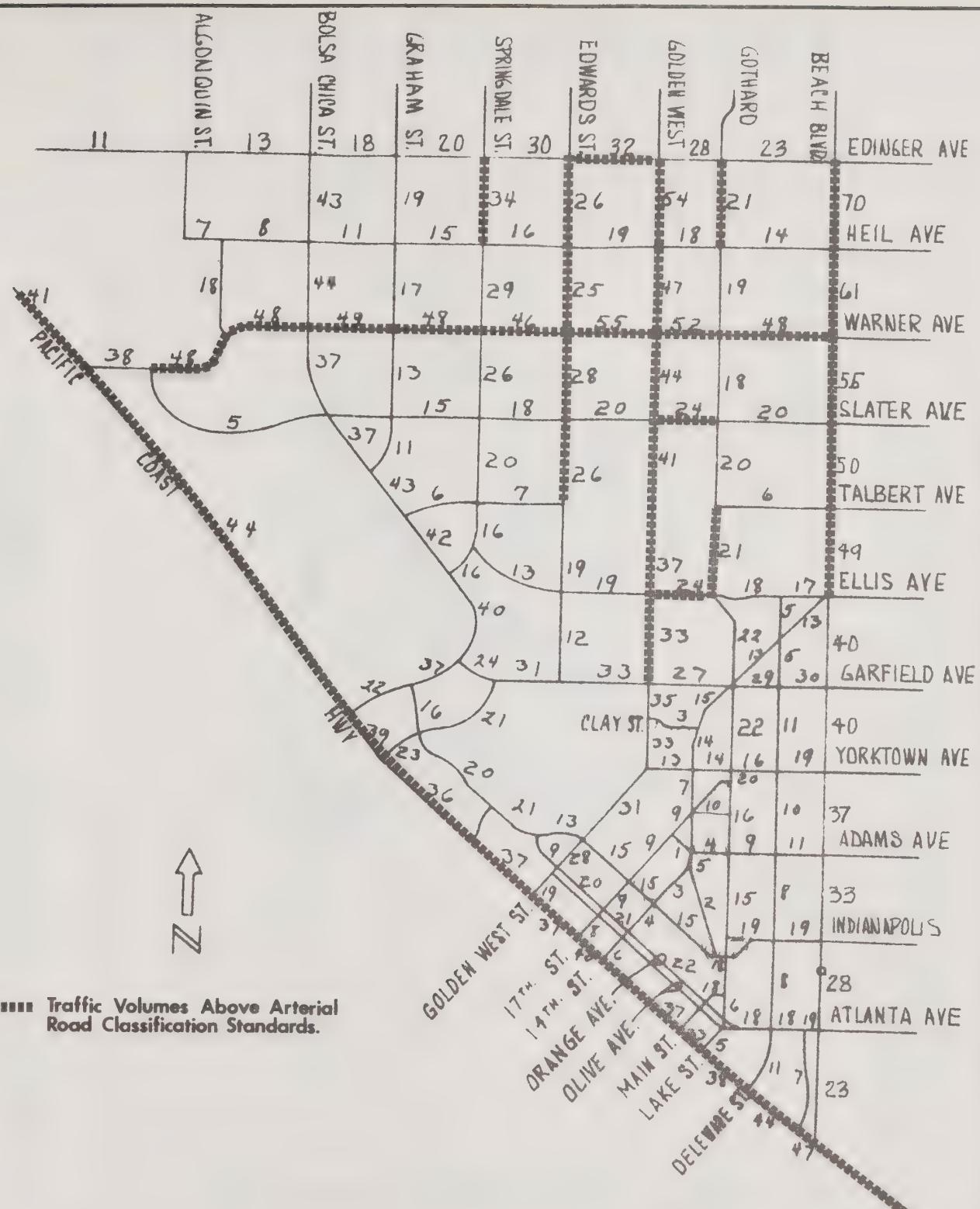
In late 1975 the Planning Department contracted with the traffic consulting firm of JHK & Associates to conduct a traffic study of the circulation pattern within the Downtown Study Area and the arterial streets providing access into the Study Area. JHK and Associates provided traffic analysis at ultimate development (peak hour and average daily travel volumes) along a circulation pattern developed in conjunction with the Planning Department Staff. Figure 3-7 and 3-8 provide the traffic counts for the peak hour and average daily travel, respectively, along the arterial streets. The land use alternative that was used in arriving at these traffic projections was the Modified Destination Resort, Figure 3-9. Both the land use and circulation patterns were adopted by the City Council in March, 1976 as part of General Plan Amendment 76-1A.

### 3.3.4 Traffic Analysis in EIR's

In preparing a circulation plan for the community, previous traffic studies that were carried out in conjunction with EIR's were used. These studies provided traffic projection along arterial streets that lay adjacent to land development and in some cases are the most recent traffic analysis available to the City.

\*The Herman Kimmel Study did not analyze the impact of motorists choosing alternative routes.





**Figure 3-6**



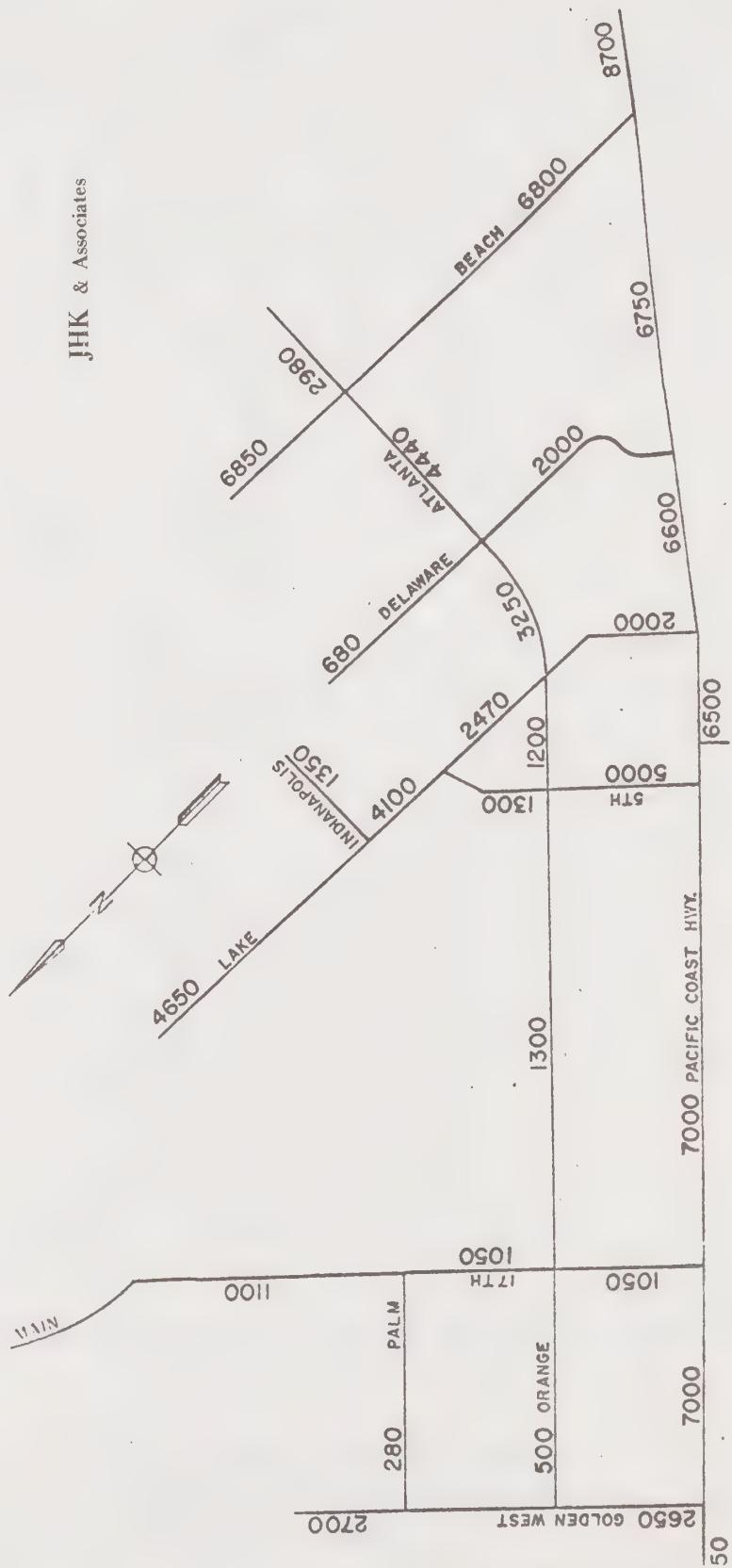
# Traffic Study Alternative 2-C Talbert Deletion

**huntington beach planning department**

## **huntington beach planning department**

## **MODIFIED DESTINATION RESORT ALTERNATIVE PEAK HOUR·ULTIMATE DEVELOPMENT**

Fig. 3-7



0000=Peak Hour Traffic; Future Year



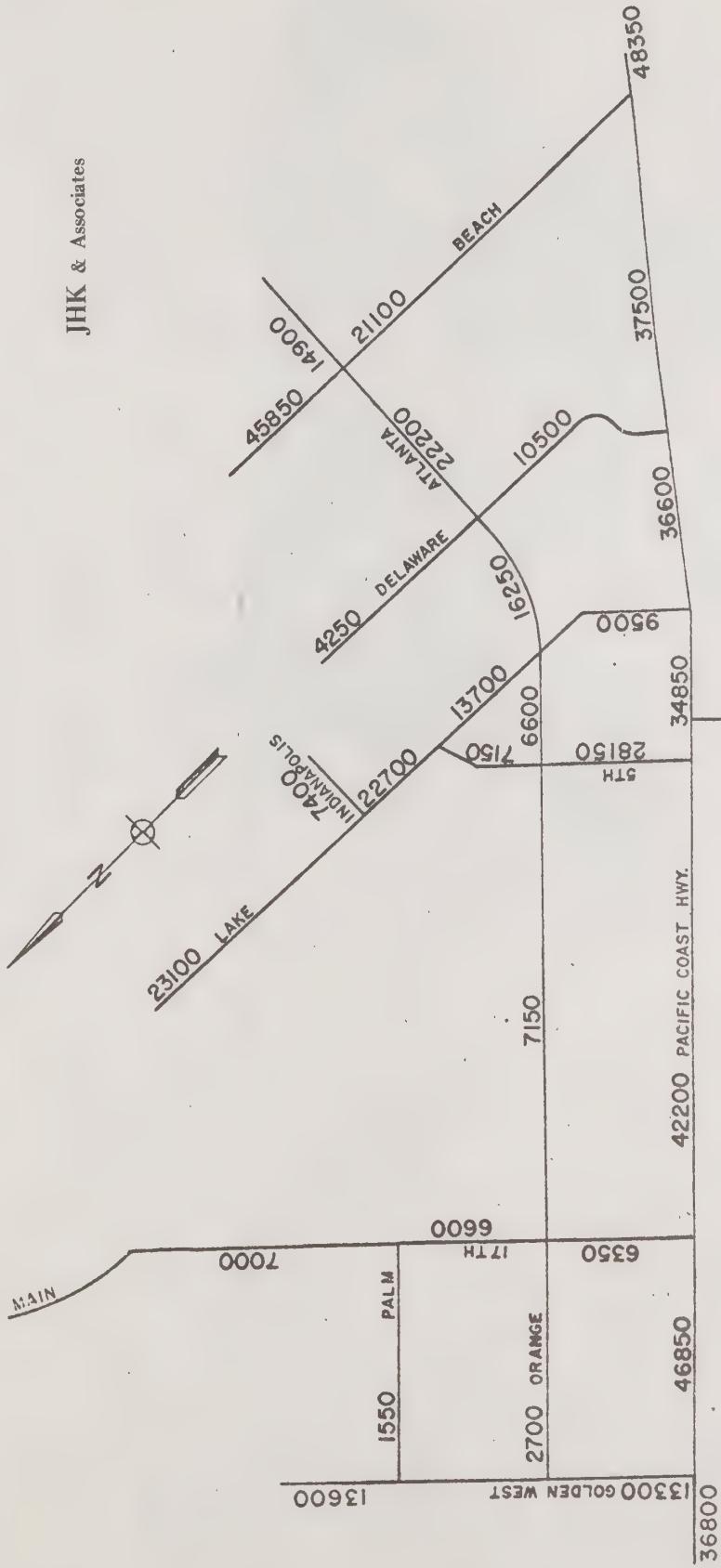


Fig. 3-8

## MODIFIED DESTINATION RESORT ALTERNATIVE 24 HOUR ADT-ULTIMATE DEVELOPMENT



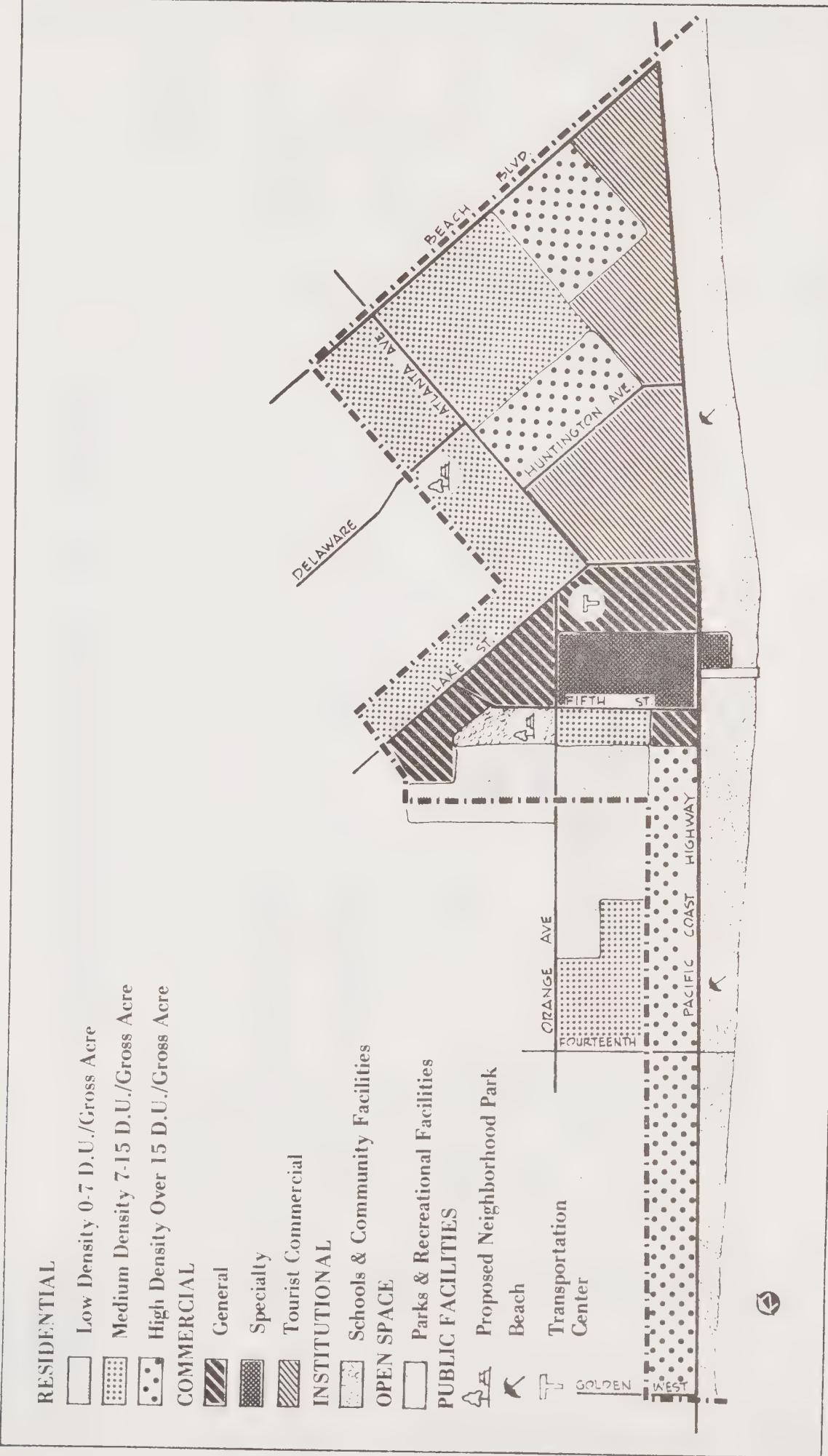


Fig. 3-9

## GENERAL PLAN AMENDMENT 76-1A AS ADOPTED BY CITY COUNCIL - MARCH, 1976



huntington beach planning department

### 3.3.5 Previous Discussions

Between 1971 and 1975 there have been a number of discussions concerning various arterial streets within the City. On some arterial streets a general consensus has been reached, while on other arterial streets (Talbert Avenue, Edinger Avenue, Edwards Street) no consensus has been reached. The analysis presented in this background report incorporates those arterial streets in which a consensus has been reached, and provides further discussion and recommendations for those arterial streets that are still unresolved.

## 3.4 Circulation Plan of Arterial Streets and Highways

The proposed Circulation Plan of Arterial Streets and Highways, Figure 3-10, provides the City Council with a guide for carrying out the orderly development of the community's arterial street system. The proposed plan includes those arterial street classifications and alignments that have been adopted by the City Council under the Master Plan of Arterial Streets and Highways. The plan also incorporates recommended changes that are intended to improve arterial traffic flow and land access. The recommended changes come under one of the following categories: (1) changes to existing arterial street alignments, (2) deletion of arterial streets from the proposed Circulation Plan, (3) downgrading in arterial street classification and (4) upgrading in arterial street classification.

Figure 3-11 provides a summary of the proposed changes to the arterial streets and highways. Specific road projects are identified and recommended courses of action are indicated in the following sections.

### 3.4.1 Changes to Existing Arterial Street Alignments

The Circulation Element Background Report proposes the realignment of two arterial streets, Edwards Street and Ellis Avenue.

- Edwards Street - Talbert Avenue to Pacific Coast Highway - This proposed realignment would extend Edwards Street south from Talbert Avenue, below the bluff line, to a point midway between Ellis Avenue and Garfield Avenue where it would swing up the bluff to intersect at Garfield Avenue at a point directly opposite the proposed 38th Street alignment.

Such an alignment was first proposed in the Amendment to the Phase I Land Use Element December, 1974 and later identified in the Scenic Highways Element Background



# CIRCULATION PLAN OF ARTERIAL STREETS AND HIGHWAYS

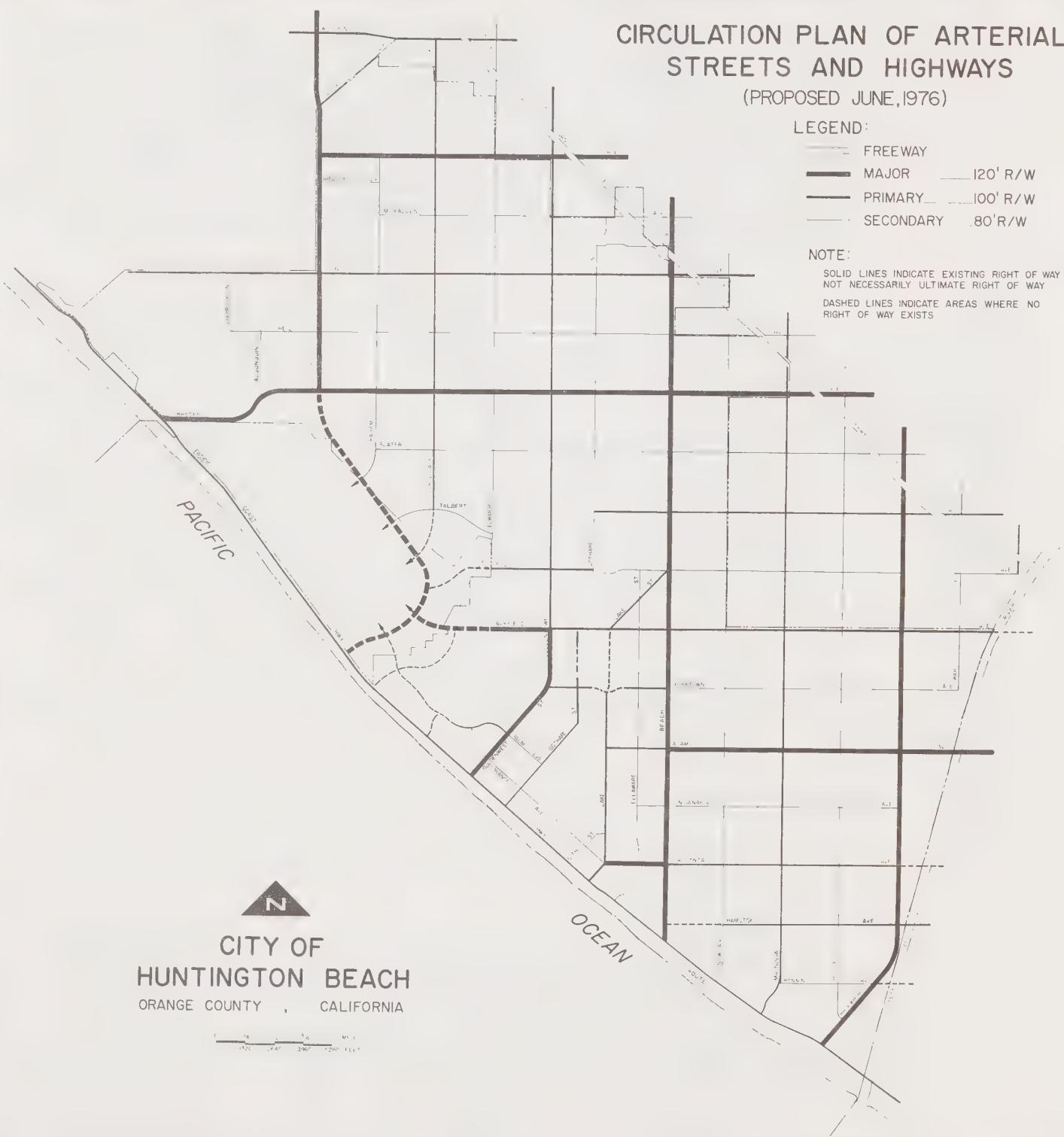
(PROPOSED JUNE, 1976)

## LEGEND:

	FREWAY
	MAJOR 120' R/W
	PRIMARY 100' R/W
	SECONDARY 80' R/W

## NOTE:

SOLID LINES INDICATE EXISTING RIGHT OF WAY  
NOT NECESSARILY ULTIMATE RIGHT OF WAY  
DASHED LINES INDICATE AREAS WHERE NO  
RIGHT OF WAY EXISTS



PREPARED BY THE HUNTINGTON BEACH PLANNING DEPARTMENT

Figure 3-10

FIGURE 3-11  
SUMMARY OF THE PROPOSED CHANGES TO THE MASTER PLAN OF  
ARTERIAL STREETS AND HIGHWAYS

No.	Road Project	Existing Road Classification	Proposed Road Classification	Proposed Road Alignment	Deletion of Arterial Street Classification	Downgrading of Arterial Street Classification	Upgrading of Arterial Street Classification
1.	Edinger Ave. - west City limits to Pacific Coast Highway	Primary	None	Abandon	Yes		
2	Saybrook Lane - Santa Barbara St. to Edinger Ave.	Secondary	Secondary	Yes			
3	Slater Ave. - Warner Ave. to Bolsa Chica St.	Secondary	None	Abandon	Yes		
4.	Talbert Ave. - Edwards St. to Goldenwest	Primary	None	Abandon	Yes		
5.	Talbert Ave. - Goldenwest St. to Gothard St.	Primary	Local	-	Yes	Yes	
6.	Ellis Ave. - Bolsa Chica Ave. to Gothard St.	Secondary	Primary	Yes		Yes	
7.	Adams St. - 17th St. to Lake St.	Primary	Local	Yes	Yes		
8.	Edwards St. - Talbert Ave. to Garfield Ave.	Secondary	Secondary	Yes			
9.	Adams Ave. - Brookhurst St. to Santa Ana River	Primary	Major		Yes		
10.	Clay St. - Main St. to Golden-west St.	Secondary	Local		Yes		

Report, June 1975 as a potential scenic route. The Scenic Highways Element Background Report identified the following significant features of the alignment:

- a. The roadway will link two important regional recreation facilities - the beach and Huntington Central Park.
- b. The roadway will tie into Pacific Coast Highway, a designated State and County Scenic Highway.
- c. The roadway can be coordinated with the recommended trails of the Equestrian Use Committee, a City Council-appointed committee.
- d. The roadway can be coordinated with the open space planning efforts of the Planning Staff, which show the bluff line as an open space corridor.
- e. The roadway, if designated as a local scenic route, will most likely receive a high degree of public support because of the recognized importance of the bluff as a resource.

In addition to these significant features, the alignment would provide a direct north-south route from Pacific Coast Highway to the north city limits. It also provides improved access to developable land on top of the bluff, and lastly would serve as the western boundary for Central Park immediately south of Talbert Avenue.

- Ellis Avenue - Edwards Street to Bolsa Chica Street Extension - This proposed change would realign Ellis Avenue immediately west of Edwards Street, extending it to intersect the Bolsa Chica Street extension approximately half way between Springdale Street and Garfield Avenue. This new alignment is an improvement over the one shown on the Master Plan of Arterial Streets and Highways because it provides a more direct east/west traffic flow for future land uses in the Bolsa Chica Bay area. The alignment is considered important because it compensates for the deletion of Talbert Avenue between Edwards Street and Goldenwest Street by providing an east-west arterial, as well as providing direct access to and from the San Diego Freeway for future developments in the Bolsa Chica Bay area. Also, the Herman Kimmel Traffic Study indicates that Ellis Avenue will take on an increased role in providing east-west traffic flow.



### 3.4.2

### Deletion of Arterial Streets

The Circulation Element Background Report proposes the deletion from the Master Plan of Arterial Streets and Highways, segments of the following arterial streets: (1) Edinger Avenue, west of the west city limits, (2) Slater Avenue, between Warner Avenue and Bolsa Chica Street extension, (3) Clay Avenue, between Goldenwest and Main Street, (4) Adams Avenue, between 17th Street and Lake Street, and (5) Talbert Avenue, between Edwards Street and Goldenwest Street.

- Edinger Avenue - West of the west city limits - The Edinger Avenue extension should be deleted from the Circulation Plan west of the city limits. Extending Edinger Avenue to intersect Pacific Coast Highway would require intrusion into a federally designated ecological preserve. The preserve contains marshlands and estuaries which provide refuge for various species of wildlife. Given the increased concern with the environment, which is epitomized by the State Coastal Plan, it is doubtful that vehicular intrusion into the area would be permitted.

In addition to the environmental concerns, the cost of such a project appears on the surface to be substantial. The extension would present engineering problems because of the existing waterways. Construction of a bridge may be required, and most likely the extension would require pilings across the marshlands. Before such an extension is even considered, an in-depth cost analysis and environmental assessment would be needed.

- Slater Avenue - Warner Avenue to Bolsa Chica Street Extension - The Slater Avenue Extension should be deleted from the Circulation Plan. The Herman Kimmel Traffic Study (Alternative 2-C, Talbert Deletion) shows the Slater Avenue alignment to have a projected ADT of 5,000 vehicles per day. The alignment would require a bridge crossing at the Wintersburg Flood Control Channel at an estimated minimum cost of \$250,000.

Bolsa Chica Bay and Mesa are presently in a volatile state, with the future not clearly defined. The proposed extension of Slater Avenue into Bolsa Chica Bay is premature, since no land use plan has been decided. Such an extension should be part of a comprehensive circulation plan for the entire Bolsa Chica Bay. The projected low traffic volume coupled with road and



bridge cost, as well as the lack of a comprehensive land use and circulation plan, makes such an alignment uneconomical from a cost/benefit standpoint. The Slater Avenue Extension is also a piecemeal attempt to provide adequate circulation in the Bolsa Chica area.

- Clay Street - Goldenwest to Main Street - This segment of Clay Street is proposed to be deleted from the City's Circulation Plan as a secondary arterial. Herman Kimmel's traffic analysis shows a projected traffic volume of 3,000 ADT. Such traffic volumes can be adequately handled with a local street designation.
- Adams Avenue - 17th Street and Lake Street - This segment of Adams Avenue is to be removed from the Circulation Plan and downgraded to a local street. Herman Kimmel's traffic study shows projected ADT's of 1,000 and 4,000 vehicles for this segment of Adams Avenue. Such low ADT's can be handled by a local street. Such a downgrading is in keeping with the overall strategy to encourage motorists to use Lake Street to gain access to the downtown area and the beach.
- Talbert Avenue - Edwards Street to Goldenwest Street - The Circulation Plan of Arterial Streets and Highways should delete and abandon the continuation of this segment of Talbert Avenue. If this segment of Talbert Avenue were constructed, it would result in dividing Central Park into quarter sections. It would create a possible safety problem for people wishing to move from one area of the park to another. Noise intrusion into the park site would increase.
- Talbert Avenue - Gothard Street to Goldenwest Street - This segment of Talbert Avenue is proposed for deletion from the arterial street system. The Herman Kimmel Traffic Study indicated projected traffic volumes along this segment of Talbert Avenue to be below 5,000 ADT. Given the deletion of Talbert Avenue between Edwards Street and Goldenwest Street, the need for continuing Talbert Avenue as a primary arterial street to service the City's library and Central Park will not be necessary. This segment of Talbert Avenue should remain open and be designated as a local street.



### 3.4.3 Downgrading in Arterial Street Classification

The Circulation Plan does not propose downgrading any existing arterial street other than those that have previously been recommended for deletion from the Circulation Plan as arterial and continued as local streets. Those streets that are proposed as local streets are (1) Clay Street between Main Street and Goldenwest, (2) Talbert Avenue between Gothard Street and Goldenwest Street, (3) Adams Avenue between 17th Street and Lake Street.

### 3.4.4 Upgrading in Arterial Street Classification

The Circulation Plan proposes the upgrading of the following arterial street classification: (1) Ellis Avenue, between Bolsa Chica Street extension and Gothard Street, and (2) Adams Avenue, Brookhurst Street to Santa Ana River.

- Ellis Avenue - Bolsa Chica Street extension to Gothard Street - The Circulation Plan proposes that this segment of Ellis Avenue be upgraded from a secondary arterial to a primary arterial. The Herman Kimmel Traffic Study showed ADT's of between 19,000 and 24,000 along this segment of Ellis Avenue, indicating that Ellis Avenue will take on an increased role in providing east/west traffic flow. The surrounding land uses that were used in the Kimmel traffic study have changed somewhat; and Talbert Avenue, a designated primary arterial, is being proposed for deletion through Central Park, thus requiring a need for a primary arterial between Warner Avenue and Garfield Avenue.
- Adams Avenue - Brookhurst Street to Santa Ana River - The Circulation Plan proposes upgrading this segment of Adams to a major arterial. Adams Avenue is presently designated as a major arterial west of Brookhurst Avenue to Beach Boulevard. The City of Costa Mesa has shown on its circulation plan Adams Avenue as a major arterial just east of the Santa Ana River. Upgrading Adams Avenue between Brookhurst Street and the Santa Ana River would extend Adams Avenue as a major arterial from Beach Boulevard to east of the Santa Ana River. Adams Avenue serves as a major link between many activity centers in the cities of Costa Mesa and Huntington Beach. As these activity centers expand, an increase in traffic volume can be expected to occur across the Santa Ana River.





Figure 3-12



## DESIGNATED TRUCK ROUTES

**huntington beach planning department**

### 3.5 Truck Routes

A goal of the City's Circulation Plan is to provide for the movement of goods with a maximum of efficiency, economy and safety. The City's truck routes provide the necessary access to industrial and commercial land uses. Figure 3-12 shows existing City truck routes. Industry requires truck access for deliveries of raw materials, the transfer of inventory and the outflow of finished products. Commercial land uses require truck access for the delivery of saleable goods. Since the adoption of the City's Truck Route Ordinance, the Land Use Element of the General Plan has undergone a number of revisions, requiring a reassessment of the City's truck routes.

There is also the need to protect land uses that are adversely affected by truck traffic: single-family and multi-family developments, churches, hospitals, schools and other land uses requiring quiet and safe surroundings. Truck traffic creates annoying levels of noise, fumes, vibrations and unsightliness. Also, massive vehicles that are parked on local residential streets are out of scale in an urban setting and degrade the aesthetic value inherent in the property ownership.

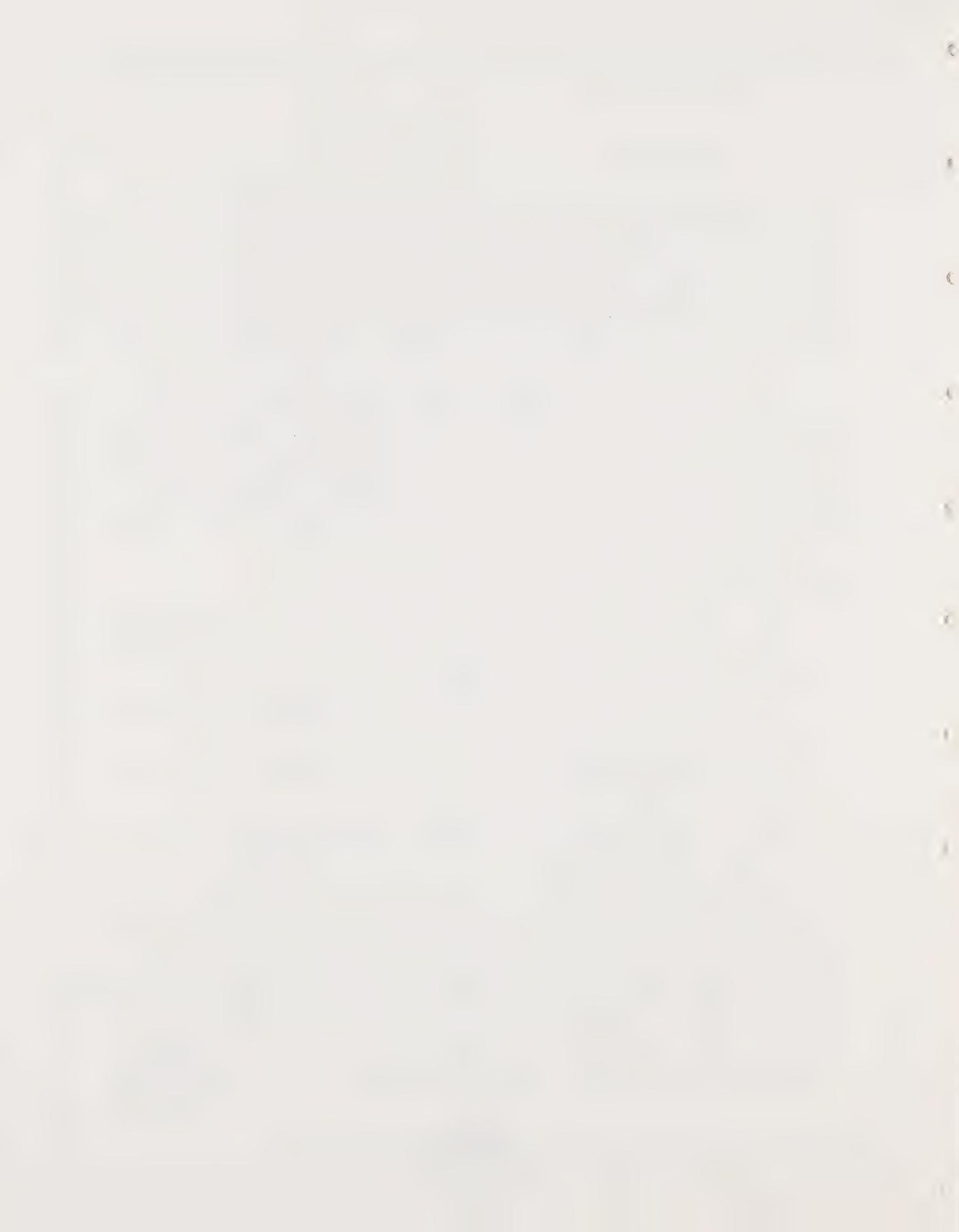
#### 3.5.1 Objectives and Principles

The basic objectives in planning a truck route system are:

1. To provide for an efficient circulation of goods within the City.
2. To provide truck routes to serve those land uses that are benefited by truck traffic.
3. To protect land uses that are adversely affected by heavy truck traffic.
4. To designate streets for the truck route system which coordinate with adjoining cities that have truck route systems.

These objectives have been partially achieved through the adoption of City Municipal Code 10.24, Truck Routes. This section of the Municipal Code designates roadways which could be used for truck routes. However, since the ordinance was last amended in 1965, several changes have taken place which affect the workability of the system. Many of the problems are the result of changes in proposed land uses and the modification of the circulation system. As a result of these changes, a reassessment of truck routes should be made.





**section 4  
public  
transportation  
modes & services**





#### 4.0

#### PUBLIC TRANSPORTATION MODES AND SERVICES

To provide a balanced circulation system, deficiencies that act as obstacles in achieving that balance need to be identified and a course of action recommended that will provide the residents of the community with the widest range of transportation choices. Southern California's lack of an effective public transportation system in the past contributed substantially to the present transportation imbalance. The automobile has provided Southern Californians with a transportation mode that is characterized as being economical, personal and convenient. The availability of styles, sizes and conveniences has provided the user with automobiles that cater to nearly every conceivable taste.

The increase in the number of automobiles coupled with an increase in urbanization between the end of World War II and the early sixties created new problems. Congestion on the highways, increase in noise levels and increase in air pollutants from automobile exhausts caused alarm among many people in the country.

In the early seventies, additional problems plagued the automobile. The effect of inflation was being felt through increased automobile cost. The most alarming problem came in 1973-74 with the realization that fuel was a finite resource and that the country did not have adequate fuel supplies to quench the thirst of the millions of automobiles on our streets and highways.



All of these problems have led the country to reevaluate its transportation policies. It was clear from the evaluation that the country, especially Southern California, had been too dependent upon the automobile, and that new transportation policies were needed that would provide the public with alternative transportation modes.

The automobile has been the predominate means of mobility for the residents of Huntington Beach. There are approximately 1.5 automobiles for each household within the City. The predominance of the automobile as the mainstay of people's mobility is projected to continue for the foreseeable future. This statement assumes that the energy crisis can be managed and that the state of the art will provide answers to improve the efficiency of the automobile.

Even with widespread reliance upon the automobile, there are many individuals and groups within the City that are not provided with adequate means of mobility or are finding other means of transportation more convenient and more economical.

As automobile costs increase and public transportation services become more accessible to the population, economic realities may become a primary consideration in determining which means of transportation will be used.

#### 4.1 Individual and Group Mobility Needs

Who are these individuals or groups within the community that require alternative modes of transportation? They consist primarily of the elderly, the young, low income families, handicapped persons, and the commuters who travel to employment centers outside the City.

##### 4.1.1 The Elderly

The elderly comprise approximately four percent of the City's population. Figure 4-1 shows the increase of elderly within the community since 1965. Concentration of elderly persons within the community, by census tract, is shown in Figure 4-2. The 1973 Special Census showed that there are approximately 2711 elderly households that fall into the very low income category. The large number of poor elderly is especially significant when it is pointed out that their incomes usually decline with age and with inflation. The loss of income makes it nearly impossible to maintain a private automobile for their mobility needs. They turn instead to public transportation.

Figure 4-1

Percentage Increase of Elderly within the Community since 1965.

	1965		1970		1973	
	60+	65+	60+	65+	60+	65+
Number of Persons	3680	2571	6710	4455	9392	6242
Percent of Total	4.90	3.43	5.79	3.84	6.55	4.36

#### 4.1.2 The Young

Young people, under eighteen years of age, make up approximately thirty-six percent of the City's total population. Figure 4-3 shows the percentage distribution of young people by census tract throughout the community. The heaviest concentration of young people is found in the western and northwestern sections of the City. This group relies on the City bike trails, pedestrian ways and the Orange County Transit District's fixed bus routes for their mobility.

#### 4.1.3 Low Income Families

The Federal Government has defined lower income households as being those households whose total family income is less than eighty percent of the median income of the area for a family of the same size. Of all households reporting incomes in the 1973 Special Census, 16,307 or thirty-five percent were below the lower income level. The Federal Government has also defined those households whose total family income is less than fifty percent of the median income of the area as very low income families. Figure 4-4 shows lower income households by family size as defined by the Federal Government. Figure 4-5 shows those census tracts with a high concentration of very low income families.

Of the above-mentioned lower income families, 7,030 households, or fifteen percent of all households, meet the very low income criteria.

#### 4.1.4 Handicapped Persons

Huntington Beach has one of the largest concentration of handicapped and disabled persons in Orange County. Many of these handicapped and disabled persons have special transportation needs that are not presently being met. Public transportation services must be designed to provide these individuals with a degree of mobility that is on a parity with non-handicapped and disabled persons.



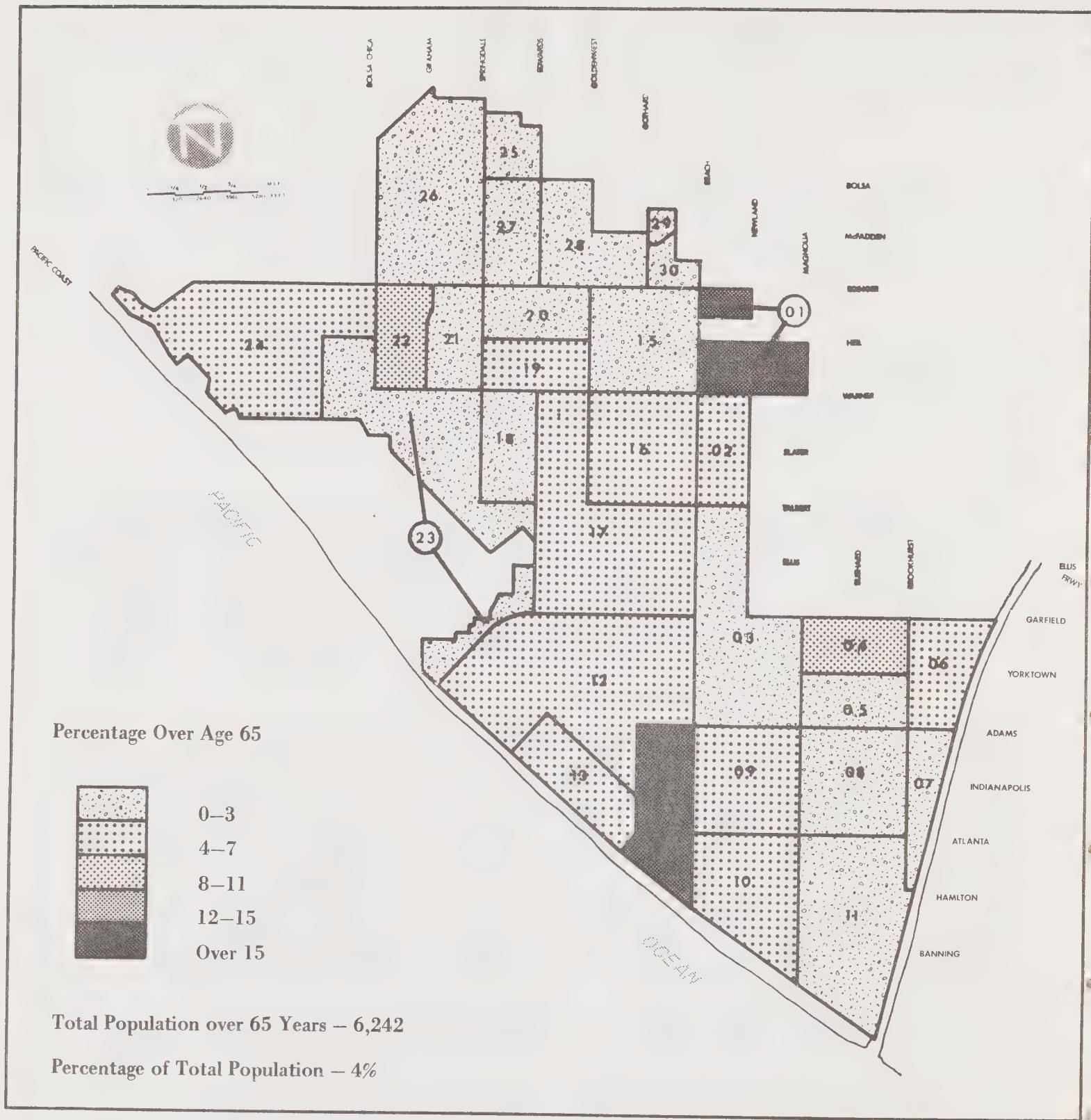
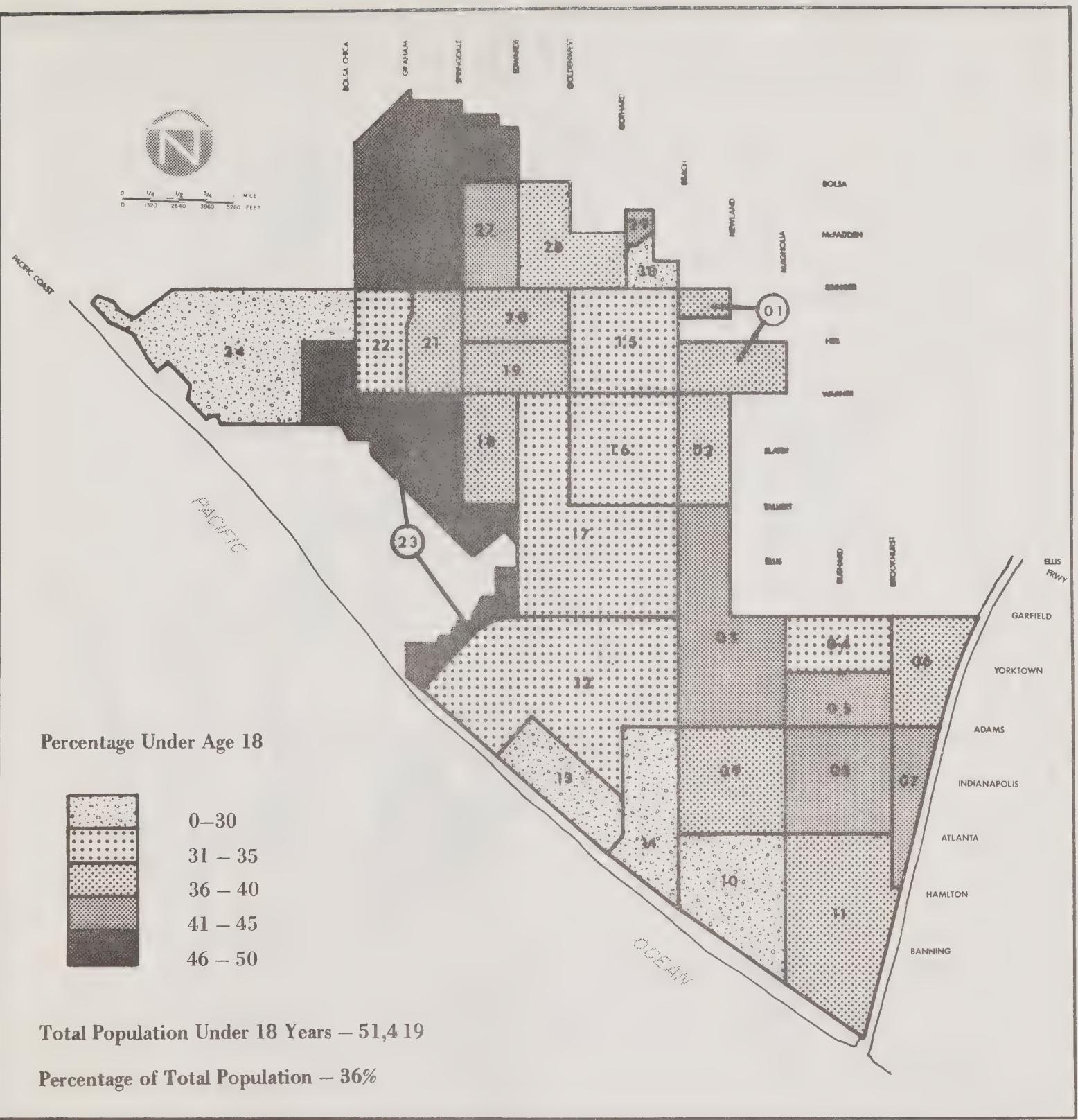


Figure 4-2



## Age 65 Or Older By Census Tract

huntington beach planning department



**Figure 4-3**



## **Under Age 18 By Census Tracts**

**huntington beach planning department**

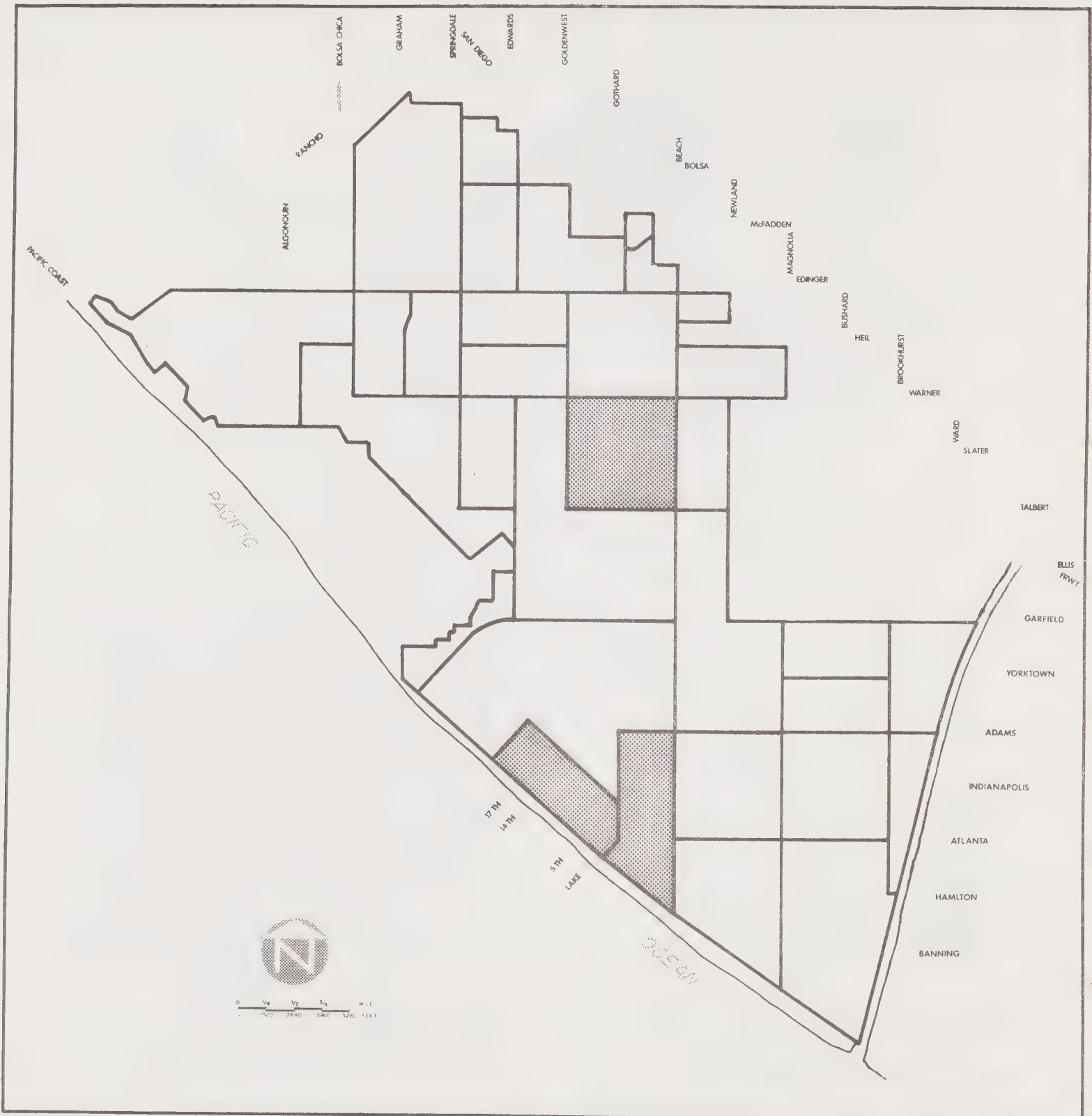


Figure 4-4

## Census Tracts With High Concentrations Of Very Low Income Families

huntington beach planning department



FIGURE 4-5

LOWER INCOME HOUSEHOLDS BY FAMILY SIZE\* 1975

FAMILY SIZE	MEDIAN INCOME (80% OF MEDIAN)	NUMBER OF HOUSEHOLDS	(BELOW THE LOWER INCOME) (50% OF MEDIAN)	NUMBER OF HOUSEHOLDS
ONE MEMBER	\$ 3,517	\$ 6,814	(2,964)	\$ 4,259 (1,847)
TWO MEMBERS	12,945	10,256	(5,479)	6,473 (2,714)
THREE MEMBERS	14,399	11,519	(2,996)	7,200 (1,197)
FOUR MEMBERS	14,941	11,953	(2,396)	7,471 ( 602)
FIVE MEMBERS	16,658	13,326	(1,551)	8,329 ( 321)
SIX OR MORE	15,614	12,491	( 921)	7,807 ( 269)
TOTAL	\$13,845	\$11,076	16,307	\$ 6,923 7,030

\*FROM THOSE HOUSEHOLDS REPORTING INCOMES IN THE 1973 SPECIAL CENSUS.



#### 4.1.5 Commuter Needs

As the public transportation system has grown and service levels improved new ridership patterns have developed. The Orange County Transit District (OCTD), through their service improvement program, have expanded their fleet of buses from fifty-three (August, 1973) to two hundred and fifty-two fixed route buses (September, 1976). The increased availability of buses, coupled with route expansion has resulted in headway times being reduced from the initial one hour wait between buses to thirty minute waits, with a few routes scheduled with headways as low as twenty minutes. Also, OCTD's Park-N-Ride service, which provides commuters working at distant employment centers an inexpensive means of transportation to and from their place of employment, gives residents of the County an effective alternative to the automobile.

Approximately 28,000 heads of households or nineteen percent of the City's population are known to work at employment centers outside Huntington Beach. Estimates are not available on the distance this commuter group travels each day, but as automobile costs increase and public transportation services improve, economic realities may cause the fixed route and Park-N-Ride services to become attractive to the commuting worker as a convenient and inexpensive alternative to the automobile. In addition to the heads of households there are many other members of households who are employed outside the community and who require adequate transportation to get to and from their place of employment.

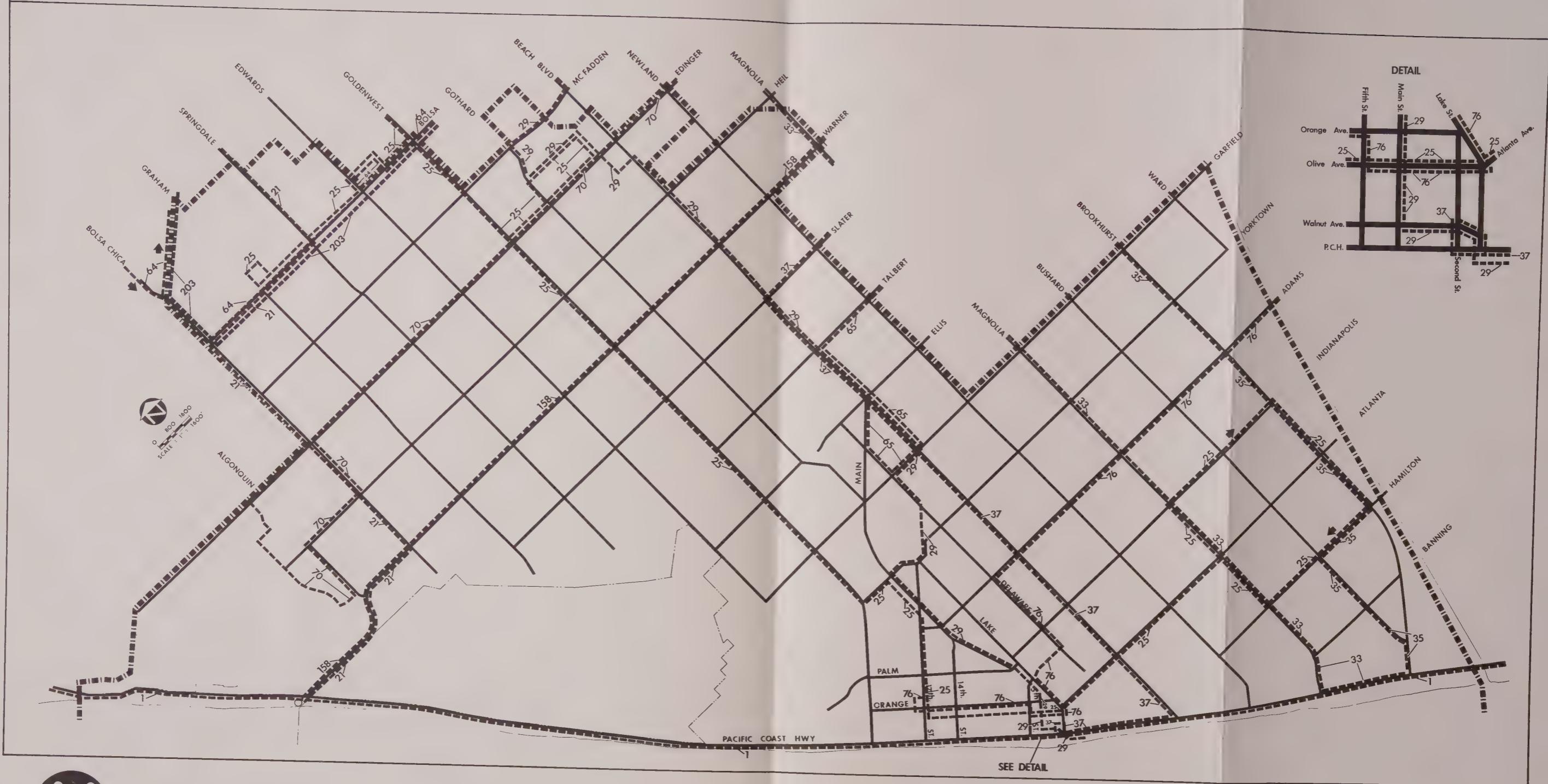
#### 4.2 Existing Public Transportation Modes and Services

##### 4.2.1 Orange County Transit District (OCTD):

Orange County Transit District became an operating public agency on August 1, 1972. The District's objective is to provide all communities in Orange County with effective, economic and safe public transportation. Initially, the District began providing bus service in Orange County on several fixed routes in January, 1973.

Since its inception, OCTD has established policies which are directed toward providing balanced public transportation services to Orange County communities. Programs which have been initiated within Huntington Beach are fixed bus routes, and a park-n-ride route along the 405 Freeway and a temporary parking facility located at McDonnell Douglas Space System Center. Also, the OCTD Dial-a-Ride program was considered by the City.





HUNTINGTON BEACH, CALIFORNIA  
PLANNING DEPARTMENT

O.C.T.D. BUS ROUTES



## 1. OCTD Fixed Bus Route Service

The Orange County Transit District initiated the first bus route service into Huntington Beach in April, 1973. The route traveled along Adams Avenue from Costa Mesa to Delaware Street to Hartford Avenue and then to the old Civic Center. Since then OCTD has provided the City with a total of thirteen fixed bus routes. These routes are shown on Figure 4-6.

OCTD has initiated a Transportation Improvements Program that analyzes the transportation needs of each of the twenty-six cities within the County. The transportation needs within the County are dynamic and require input from the communities to enable OCTD to respond to the needs of the public. OCTD will undertake Transportation Improvement Programs twice a year to ensure that the County Transportation needs are met. The Transportation Improvements Program is designed to implement major service changes to bus programs, while minor changes to the transportation systems will be initiated as the need arises.

## 2. Park-N-Ride Program

The OCTD Park-N-Ride concept is directed toward providing public transportation service for the home to work commuter. Parking facilities have been designated at locations near commuter homes, enabling them to park their automobile at the facility and board a bus that transports them to or near their place of employment.

The program was first introduced by OCTD in December, 1974. The original route traveled along the Santa Ana Freeway and extended from Fullerton to Los Angeles with a permanent Park-N-Ride facility in the City of Fullerton. The program was so successful that OCTD decided to expand the program to serve the entire county. In February, 1975, the OCTD Board of Directors approved the expansion of the Park-N-Ride program from the original route to six routes. Service began in July, 1975. Figure 4-7 shows the six adopted routes. Temporary parking facilities are provided at shopping centers and movie theater parking lots that parallel the six express routes. Huntington Beach is serviced by Route C which extends along the San Diego Freeway from San Clemente to the Valley View Park-N-Ride facility with connecting service into the Long Beach/South Bay area. A temporary Park-N-Ride facility has been designated in the McDonnell Douglas parking lot at the northeast corner of Bolsa Avenue and Bolsa Chica Street.



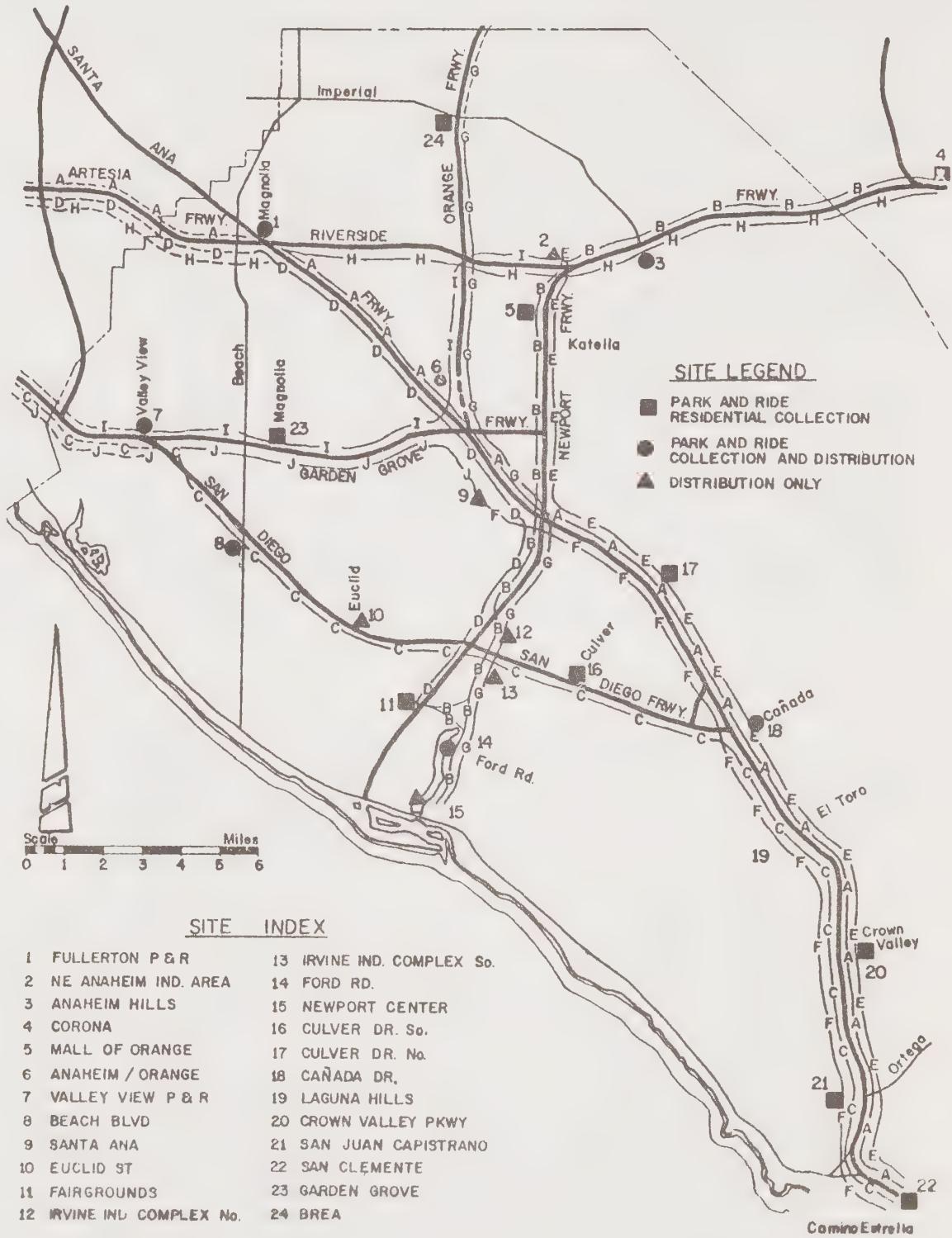


Figure 4-7



## Park And Ride / Freeway Bus System

huntington beach planning department

### 3. Dial-A-Ride Program

The Dial-A-Ride program was introduced into Orange County in January, 1973, when the City of La Habra working in conjunction with OCTD began service. The program is designed to provide individuals living within the City boundaries with public transportation that allows for door-to-door service.

During the latter part of 1974, the City of Huntington Beach's Planning Commission and City Council studied the Dial-A-Ride program as a possible service that could be provided to the residents of the community. After much discussion it was decided that the economic considerations outweighed the community's needs for such a service at the time. Under the Dial-A-Ride program, as initially proposed, cities were required to subsidize one-third of the cost. The cost to the City of Huntington Beach would have been approximately \$182,000 annually.

In July, 1975 three Orange County taxicab firms filed suit against the Dial-A-Ride bus system in Superior Court, stating that the bus system represented unfair competition to taxicab firms. In August, 1975 a ruling was handed down that supported the contentions of the cab firm. OCTD was given one hundred twenty days to abandon its Dial-A-Ride system or open negotiations for the purchase of the taxicab firms. As a result of this court decision, OCTD has been studying alternative ways that would permit the continued or expanded use of the Dial-A-Ride service. Alternatives that have been considered are (1) appeal the Superior Court's ruling that found in favor of the taxicab companies; (2) purchase of competing taxicab companies; (3) negotiate with taxicab companies to allow Dial-A-Ride to continue in areas where the service is presently in operation; and (4) attempt to have the State's enabling legislation changed to allow OCTD to compete with taxicab companies.

In February, 1976, the OCTD's Board of Directors ended the one third City subsidy requirement for the Dial-A-Ride program, thus removing the major objection the City had when initially considering the program. The City should continue to monitor future developments concerning the Dial-A-Ride Program, and if the opportunity arises, the City should reconsider its position with regard to the Dial-A-Ride program.



#### 4. Dial-A-Lift Program

The Dial-A-Lift program is designed to provide door-to-door bus service for handicapped persons. The buses that would be used in this program are specially designed to accommodate individuals who are confined to wheelchairs. The program is in the planning stages and service has not yet begun.

#### 5. Community Fixed Route Service (CFR)

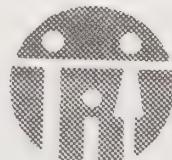
The Community Bus Service consists of intracity fixed bus routes. The service would use small jitney type buses with carrying capacities of approximately nineteen passengers and would travel along designated routes in the City with thirty minute, or less, headways. This type of bus service does not provide the same high level of door to door service that is characteristic of the Dial-A-Ride program but would be an effective alternate program if Dial-A-Ride is discontinued.

The CFR intracity bus service has the potential of providing residents with a dependable means of public transportation to and from activity centers within the City. OCTD initiated the first CFR programs in the communities of Buena Park and Westminster in February, 1976. OCTD will carry out studies that compare the cost effectiveness of community fixed routes to the Dial-A-Ride Program in order to establish criteria for aiding cities in determining which of the two programs best serve their community's residents.

#### 4.3 Southern Pacific Railroad Right-of-Way

The City of Huntington Beach is transversed by the Southern Pacific Railroad. This rail line extends in a north-south direction, entering the City north of the intersection of McFadden Avenue and Gothard Street and extends just south of Atlanta Avenue. The railroad makes one trip per day along the right-of-way, providing businesses with freight transportation in and out of the City.

Southern Pacific Railroad has been considering abandonment of the rail line between Garfield Avenue and Atlanta Avenue. This proposed abandonment has resulted from the infrequent use of that portion of the line.



The railroad right-of-way has been identified as a potential mass rapid transit corridor by the City and the Orange County Transit District. The City's Planning Commission, as early as February, 1971 indicated that the existing right-of-way south of Garfield Avenue, as well as an additional fifteen or twenty feet on each side of the right-of-way be set aside as a potential mass rapid transit corridor.

The Orange County Transit Board of Directors on March 18, 1974, adopted basic transit plan T2E modified "A" (Figure 4-8). This plan is one of many mass rapid transit corridor plans studies. While the rail line extending into Huntington Beach is shown on the plan, OCTD has indicated that purchase of the right-of-way is very low on their priority list.

#### 4.4 Orange County Multi-Modal Transportation Study

In August, 1972, the State Legislature deleted the Route 1 Freeway from the State Freeway System. The deletion resulted from cutbacks in funding by the State Legislature. In March, 1973, the Orange County Board of Supervisors gave approval for a countywide transportation study. The original study plan was envisioned as dividing the County into various zones, with the area between the San Diego Freeway and the Pacific Coast Highway designated as a transportation corridor within the Coastal Zone. Cities lying within the Coastal Zone were to participate in the study.

In April, 1975, the Huntington Beach City Council adopted Resolution 4062 which requested the Orange County Board of Supervisors to authorize and direct a study of the Route 1 transportation corridor freeway alignment. The Orange County staff has indicated that the multi-modal transportation committee, formed by the Board of Supervisors, is preparing a work outline for a County transportation study. When the work outline is complete, cities in the County will be asked to participate. It is anticipated that the study will begin in the summer of 1976 and be completed two years later.

#### 4.5 Minor Transportation Services Within the City

##### 4.5.1 Greyhound Bus Line

The Greyhound Bus Line is privately owned and provides bus service to all parts of the United States. A Greyhound Bus Terminal is located in Huntington Beach at the corner of Main Street and Walnut Avenue.





Figure 4-8

## Orange County Transit Plan T2E Modified "A"

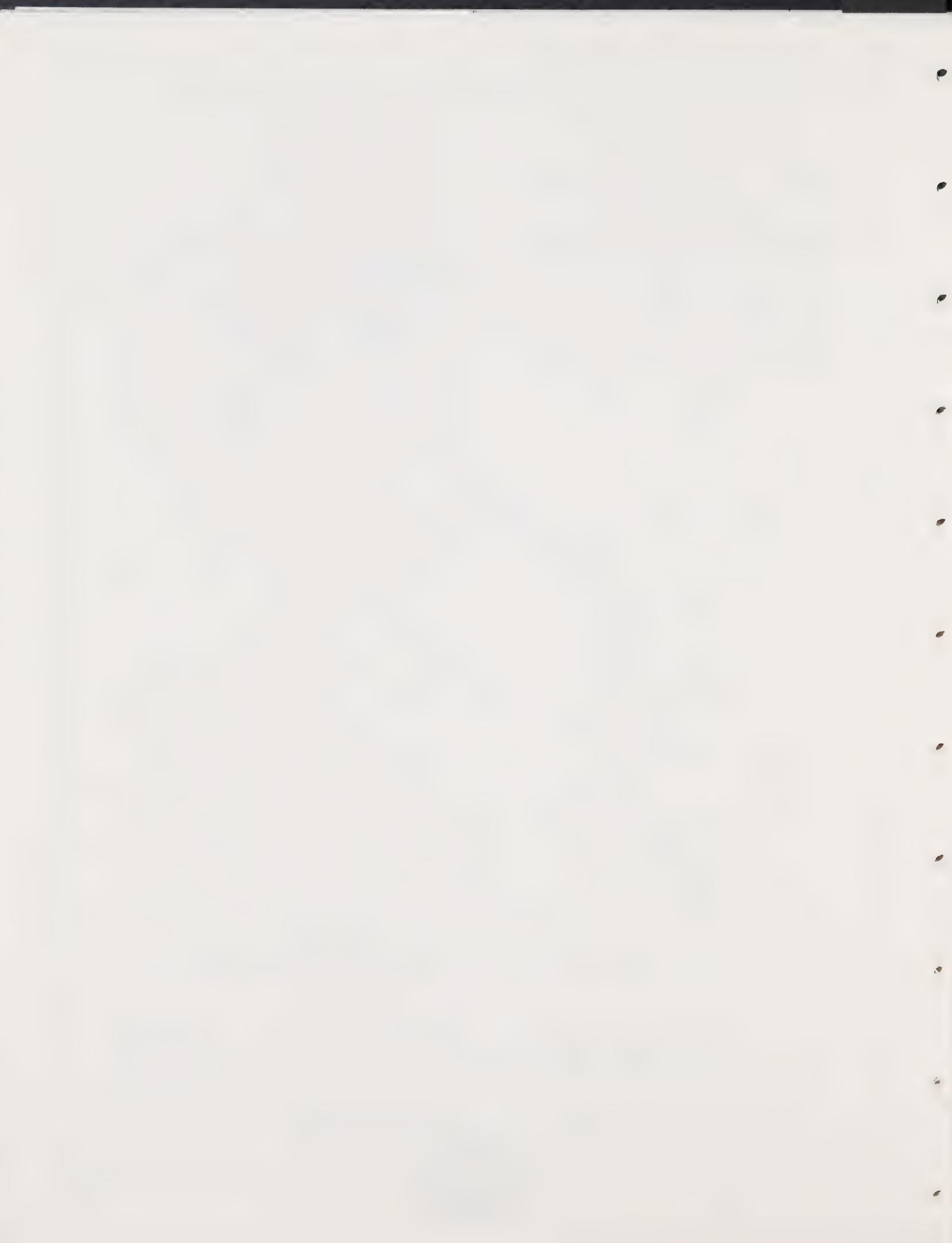
huntington beach planning department



#### 4.5.2 Yellow Cab Company

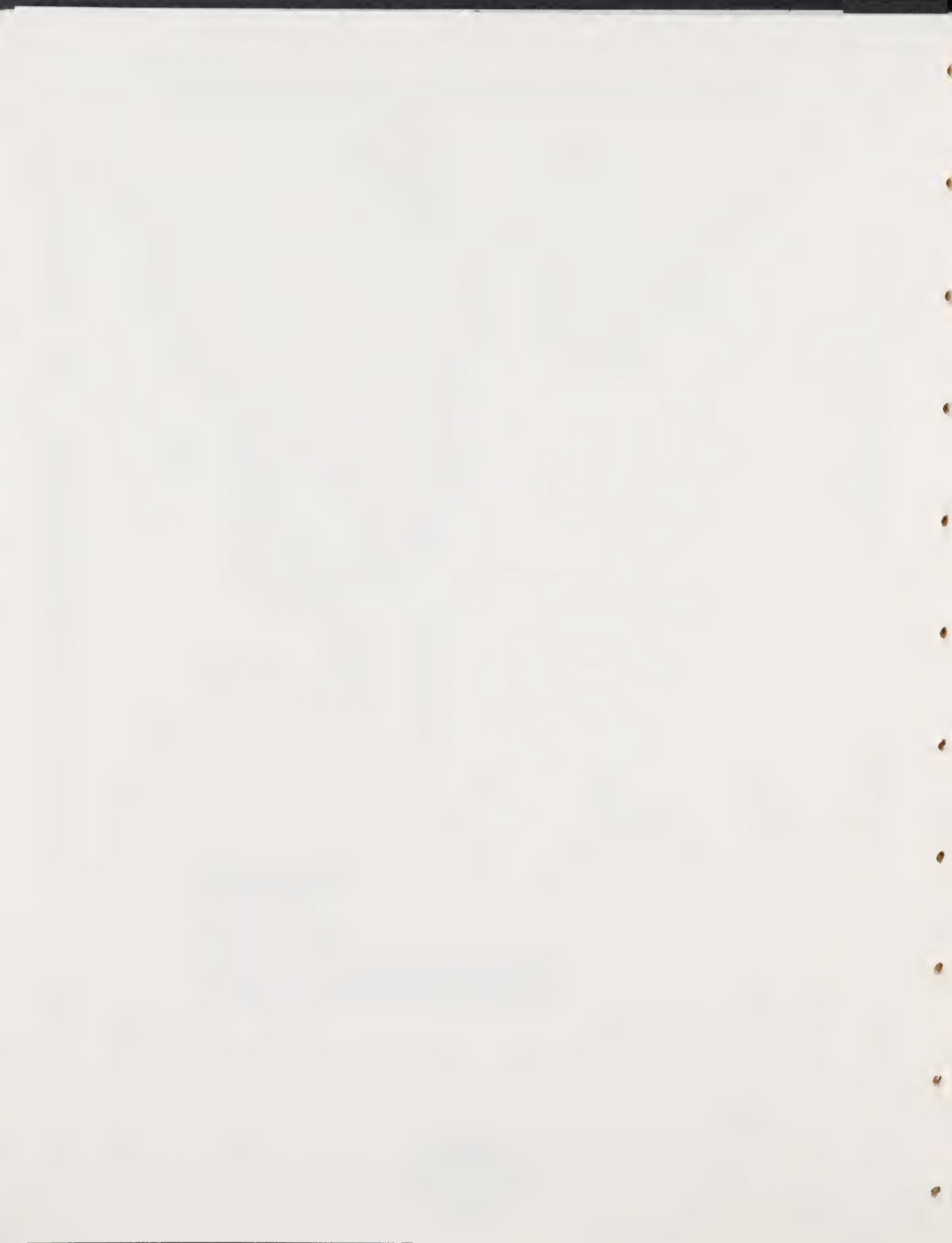
The Yellow Cab Company provides service within Huntington Beach. Six taxis are based and operated exclusively within the City. The Yellow Cab Companies of North Orange County, Santa Ana and Newport Beach brought suit against OCTD's Dial-A-Ride program. The Yellow Cab Company contended that the Dial-A-Ride program was unfair competition because OCTD used tax monies to compete against it. As indicated earlier in this report, the court found in favor of the taxicab company.





**section 5  
water  
transportation**





## 5.0

## WATER TRANSPORTATION

The waterways that lie within the City of Huntington Beach or within its sphere of influence are located in the Sunset-Bolsa Chica Gap. Figure 5-1 graphically identifies this area. Recreational boating is the primary use of the existing waterways in the area. These waterways provide access to the ocean through Anaheim Bay for small pleasure craft moored in Huntington Harbour and Sunset Aquatic Regional Park.

Undeveloped marshlands and estuaries surround Huntington Harbour and Sunset Aquatic Regional Park. These marshlands and estuaries have been identified by the California Coastal Zone Conservation Commission, in its Proposed Coastal Plan, as having statewide importance and significant restoration potential. The dredging of any new waterway channels into these remaining marshlands and estuaries will require careful planning and coordination among the private land owners and public agencies in order to preserve the integrity of these wetlands.

### 5.1 Existing Water Transportation



### 5.1.1 Huntington Harbour

Huntington Harbour is a water-oriented residential development. It lies within the Sunset Gap and is generally described as being located within the area northwest of Warner Avenue, west of Algonquin Street, south of Edinger Avenue, and east of Pacific Coast Highway. Figure 5-2 shows the existing and proposed waterways within Huntington Harbour.

Major waterway construction was undertaken between 1961 and 1965 by dredging tidal salt marshes and depositing the dredged soil on adjacent land to create artificial land surfaces. There are approximately 250 acres of dredged waterways within Huntington Harbour. The waterways have a width of between 200 and 400 feet, with a depth of 10 feet below mean lower low water (MLLW). Cross sections and current surveys in the east and west channels were made in May, 1973, by Moffatt and Nichol, Engineers of Long Beach and again in March, 1975. These cross sections show that depths over most of the channel widths are still approximately a -10' MLLW, thus indicating a very minor sedimentation rate in the Huntington Harbour waterways. The typical bulkhead that extends throughout the harbor is shown in Figure 5-3.

### 5.1.2 Boat Slips in Huntington Harbour

Application for the construction of boat slips within the harbor must be made to the City of Huntington Beach, the Coastal Commission, the Army Corps of Engineers, and (for all boat slips constructed on the State Channels - Harbour Channel and that portion of Midway Channel west of Harbour Channel) the State Lands Commission.

In addition to the private boat slips there are three commercial marinas in Huntington Harbour, all of which are owned by Huntington Harbour Corporation. These marinas provide docking facilities for residents of Huntington Harbour who own boats but whose lots do not abut waterways. Figure 5-4 shows the most recent inventory of boat slips within Huntington Harbour and the area surrounding the harbor. The inventory was prepared by the City's Department of Harbors and Beaches in early 1974.

### 5.1.3 Boat Wastes Ordinance

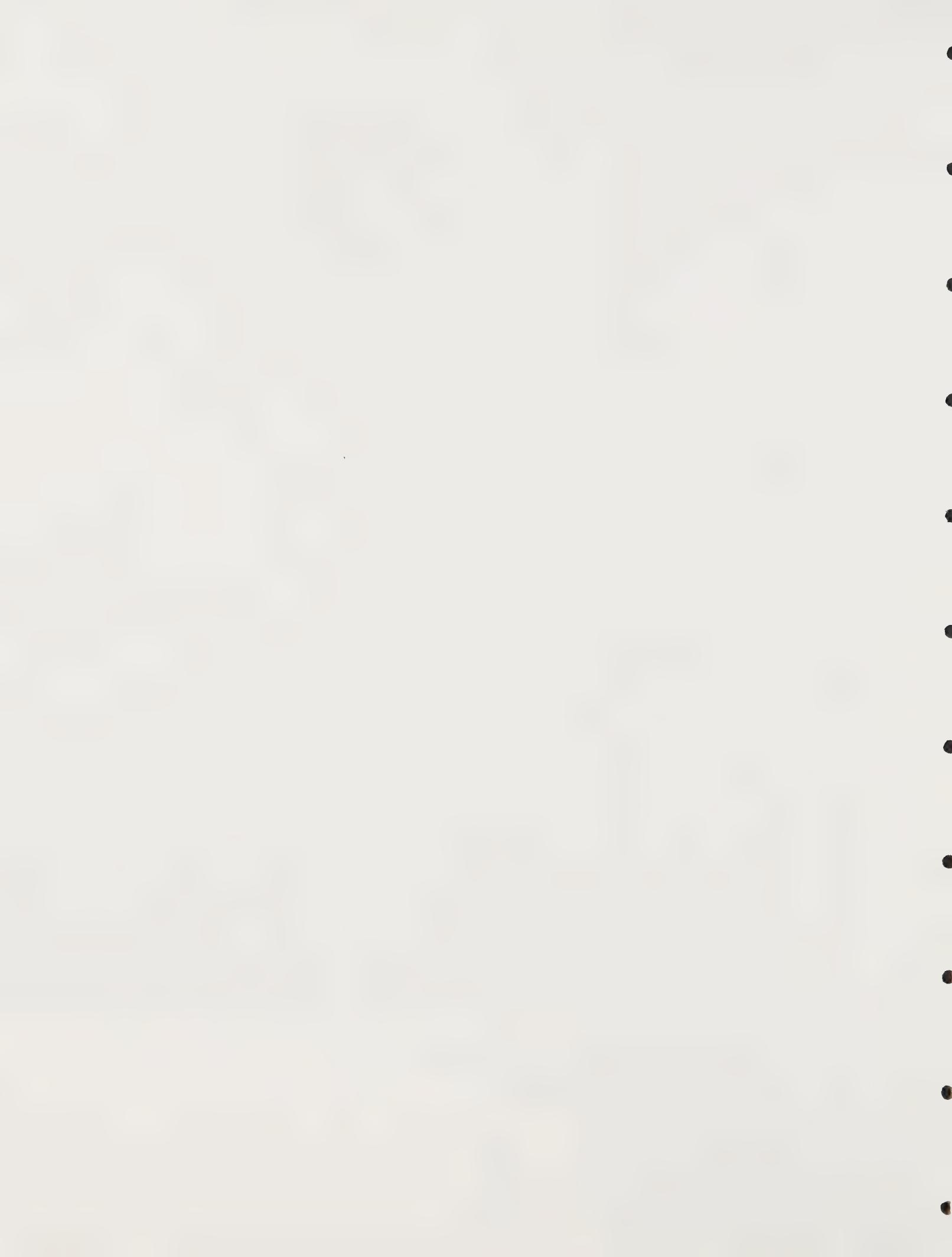
In December, 1972, the City Council adopted Ordinance No. 1792. The ordinance prohibited boats equipped with



Figure 5-1



HUNTINGTON BEACH CALIFORNIA  
PLANNING DEPARTMENT



HUNTINGTON BEACH CALIFORNIA  
PLANNING DEPARTMENT



N

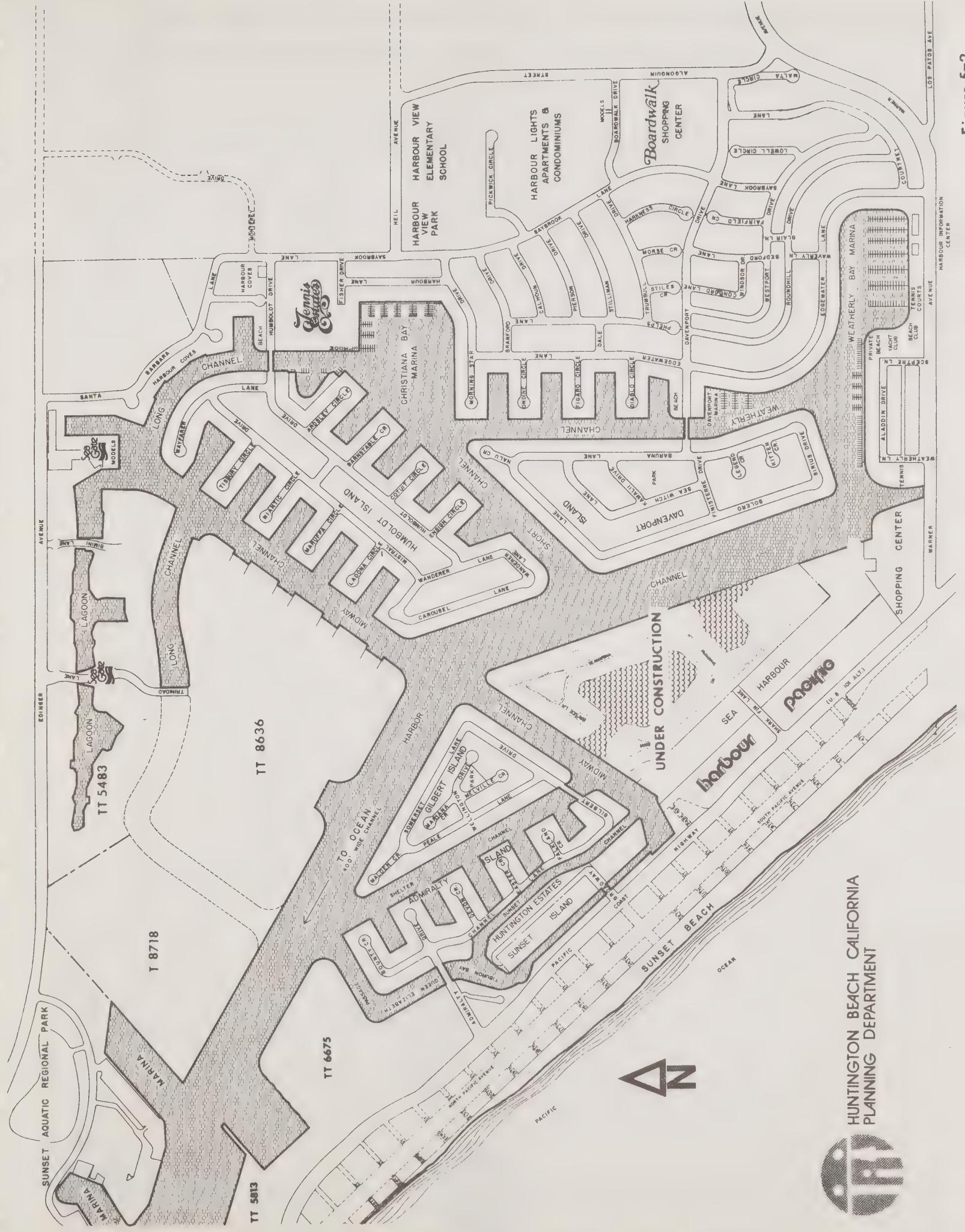


Figure 5-3

Typical Section Channel Bulkhead  
In Huntington Harbour

HUNTINGTON BEACH CALIFORNIA  
PLANNING DEPARTMENT

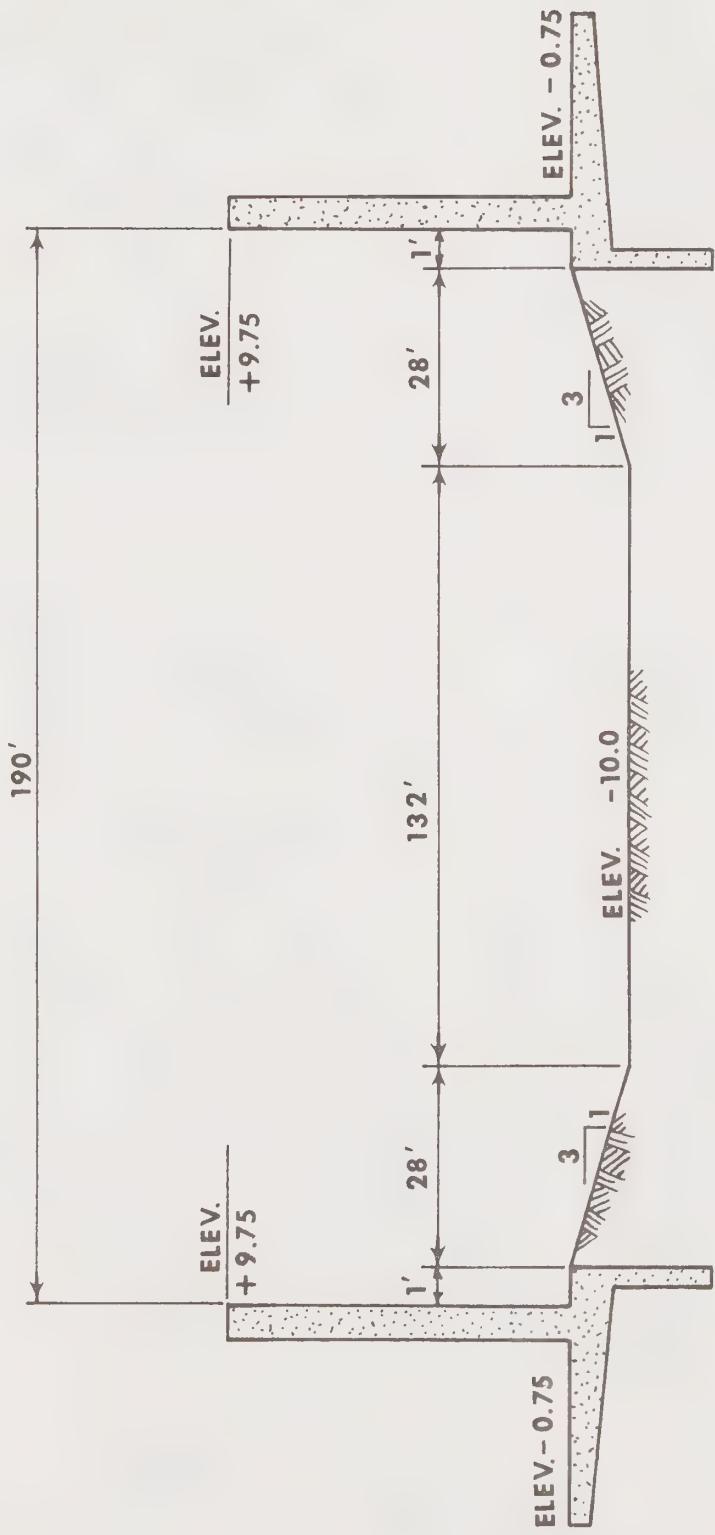


Figure 5-4

Inventory of Existing Boat Slips in Huntington Harbour

I. Number of Water Front Homes and Condominiums\*

A.	Huntington Harbour	
1.	Single family residences	624
2.	Condominiums	314
B.	Huntington Marina	92
C.	County Area	90
	TOTAL	<u>1120</u>

II. Number of Slips\*

A.	Huntington Harbour	
1.	Single family residences	640
2.	Condominiums	398
B.	Commercial Marinas	
1.	Warner Street	196
2.	Davenport Street	62
C.	Huntington Marina	92
D.	Aquatic Park	286
E.	County Area	62
	TOTAL	<u>1736</u>

III. Number of Vessels in Slips

A.	Huntington Harbour	
1.	Single family residences	1100
2.	Condominiums	234
B.	Commercial Marinas	
1.	Warner Street	162
2.	Davenport Street	32
C.	Huntington Marina	105
D.	Aquatic Park	286
E.	County Area	80
	TOTAL	<u>1999</u>

\*Figures quoted include areas under construction as of February, 1974.



Figure 5-4 (contd.)

IV.	Number of Vessels	
A.	Huntington Harbour	1528
B.	Huntington Marina	105
C.	Aquatic Park	300
D.	County Area	286
	TOTAL	<u>2219</u>
V.	Number of Marina Parking Spaces	
A.	Warner Street Marina	243
B.	Davenport Marina	144
	TOTAL	<u>387</u>



toilets or receptacles for human body wastes from using the waterway of Huntington Harbour unless the boat is equipped with a holding tank. The ordinance also provides for the establishment, at each commercial marina, of a permanent holding tank pump-out facility or equivalent service to serve boats berthed at the marina.

#### 5.1.4      Sunset Aquatic Regional Park

The Sunset Aquatic Regional Park is a public marina located north of Huntington Harbour, lying just outside the city limits. The park is presently under the jurisdiction of the Orange County Harbors, Beaches, and Parks District. The marina provides approximately 286 boat slips for pleasure craft up to 55 feet in length. The park also provides an additional 95 dry storage spaces, a boat launching ramp, boat repair yard, and one holding tank pump-out facility.

#### 5.2          Ocean Access

The only access to the ocean from Huntington Harbour and the Sunset Aquatic Regional Park is through Anaheim Bay. The entrance has been the cause of much concern because of the existence of potential hazards.

The Naval Weapons Station is located adjacent to Anaheim Bay. The naval installation provides storage facilities for various types of explosives, thus posing a safety hazard to all water craft within the Anaheim Bay area. The greatest risk occurs when explosives are loaded and unloaded along the wharf area. To date, there have not been any accidents; however, the potential remains. Until the ocean access is modified or a new ocean access is provided, the situation will continue.

A problem that has, in the past, been identified as a potential hazard that confronts the boating public of Huntington Harbour and the Sunset Aquatic Regional Park is the Pacific Coast Highway bridge. There are a number of sail boats that cannot exit or enter under the bridge unless masts are lowered, causing an inconvenience to the sailor rather than a hazard. The bridge has a 30-foot clearance at mean lower low water and 24.5 feet at mean higher high wide.

In early 1975 the Huntington Harbour Capacity Study (EIR 75-1) was prepared which, in part, analyzed the future boating capacity of the channel ways within the harbor, including the question of ocean access. The study concluded that the Pacific Coast Highway bridge did not present any serious problem to boat traffic and could, in fact, accommodate a doubling of boat traffic volume on the heavier used days during the summer months.



### 5.3 Signal Properties, Inc. - Bolsa Chica Bay Master Plan

Signal Properties, Inc., formulated a preliminary master plan for the Bolsa Chica area in 1972. The plan has since been revised, with the latest revision being August, 1974. This plan is shown in Figure 5-5. The Signal plan calls for the dredging of new waterway channels and the development of a water-oriented residential complex. The complex when fully developed would provide approximately 2000 private boat slips. This plan assumes construction of an ocean cut south of Warner Avenue as well as development of the public marina.

### 5.4 Bolsa Chica Bay - State Resources Agency

Bolsa Chica Bay, south of Warner Avenue, is the most significant planning area within Huntington Beach's sphere of influence. The area is one of the few remaining marshlands and estuaries in Southern California. Although the installation of tide gates on the property in 1899 limited tidal flow, and an active oil and gas operation has been carried on since the 1940's, this inlet remains relatively undeveloped.

The State Resources Agency published in March, 1974, the Draft Environmental Impact Report and Conceptual Master Plan for future development of the State-owned and leased lands within the Bolsa Chica Bay. The plan calls for an ocean entrance south of Warner Avenue, the dredging of a 500-foot wide waterway to provide access to a proposed public marina, and the restoration of a 500-acre marshland to be set aside as an ecological preserve.

Figure 5-6 shows the proposed ocean entrance, public marina, and ecological preserve, with Pacific Coast Highway rerouted west of Bolsa Chica Bay.

Figure 5-7 shows the same proposals with a bridge across the ocean cut. The channel from the entrance to the public marina is proposed to parallel the existing Coast Highway with a width of 500 feet and a bottom elevation of 15 feet below mean lower low water. Additional channel dredging would be required if the private development proposed by Signal Properties is approved.

### 5.5 The California Coastal Plan

The California Coastal Zone Conservation Commission is charged with the responsibility of preparing a plan for the future development of the California coast. The Commission published its proposed Coastal Plan in December, 1975 and has since submitted it to the State Legislature. The Coastal Plan is directed toward achieving the following objectives:

SUMMARY:

ZONE	AREA	BLUFF AREA ACRES	TRACT NO UNITS	SLY OF TIR NO ACRES	TOTALS ACRES
R-1 5000					56.6 278
R-1 6000		63.0 292	1922 852	176.8 797	432.0 1941
TOWNHOUSES					46.9 375
R-2 PD 14				57.7 808	57.7 808
R-2 PD 15		58.1 1472		132.1 1982	313.7 4706
R-3		56.2 1369		13.4 322	82.3 1976
R-5				2.2 305	20.2
C-REC.				1.4 3	14.3
C-4		7.5		3.6 8	61.4
SCHOOL SITES				0.9 1	20.3
PARKS/GREENBELTS		36.5	62	62.0	1067
MARINA/MARSH				181.4	718.4
TOTALS		261.3	3113	218.7 1852	1528.5 10084

"PLAN AS SHOWN USED MEANS A HYPOTHETICAL DESIGN ONLY AND DOES NOT NECESSARILY REPRESENT THE ACTUAL INTENT OF THE OWNER/DEVELOPER."

LEGEND:

- R-1 DEVELOPMENT
- R-2 DEVELOPMENT
- R-3 DEVELOPMENT
- R-5
- COMMERCIAL
- SCHOOL SITES
- PARKS & GREENBELTS
- MARINA & MARSH
- STREETS & HIGHWAYS

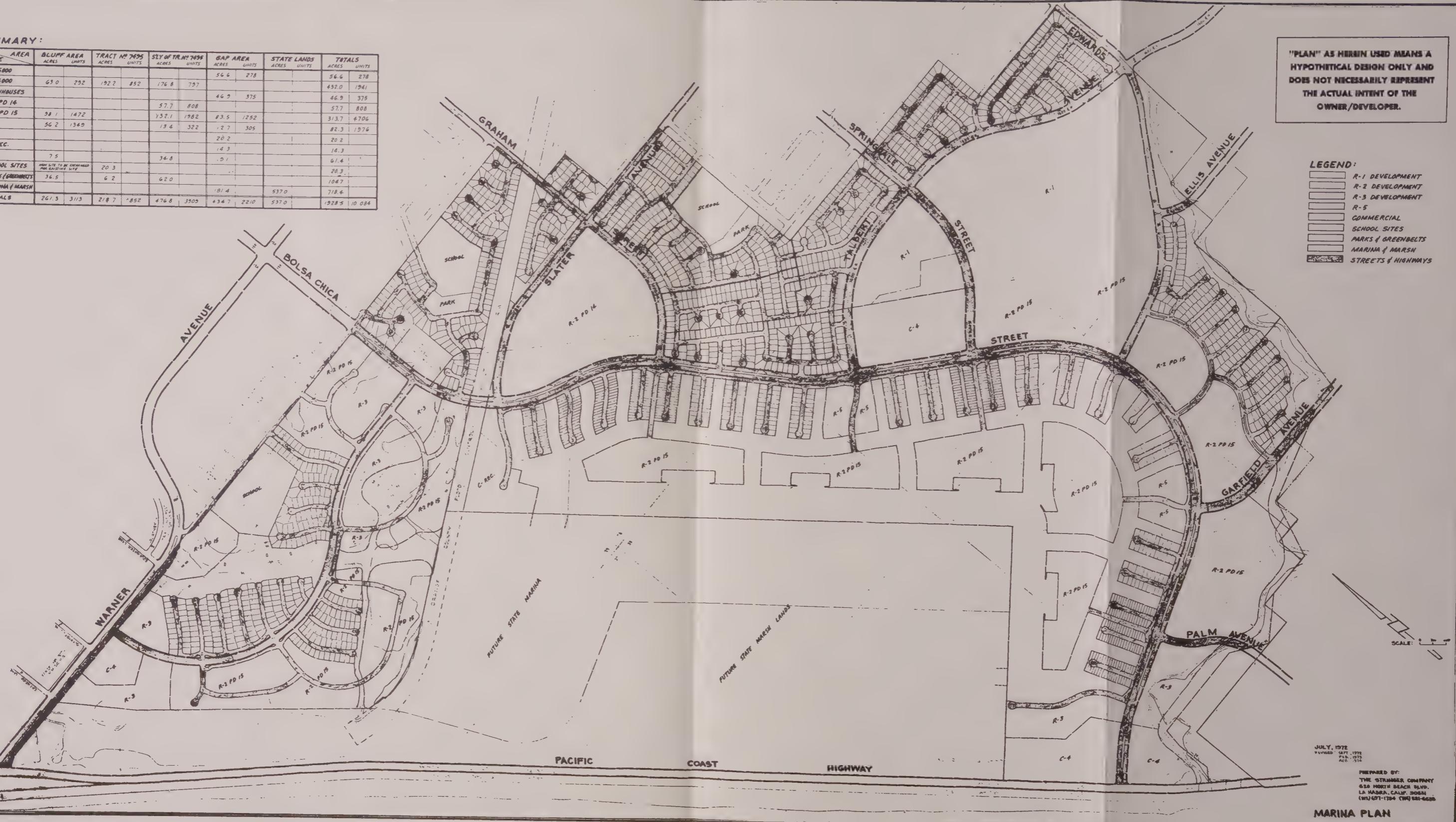
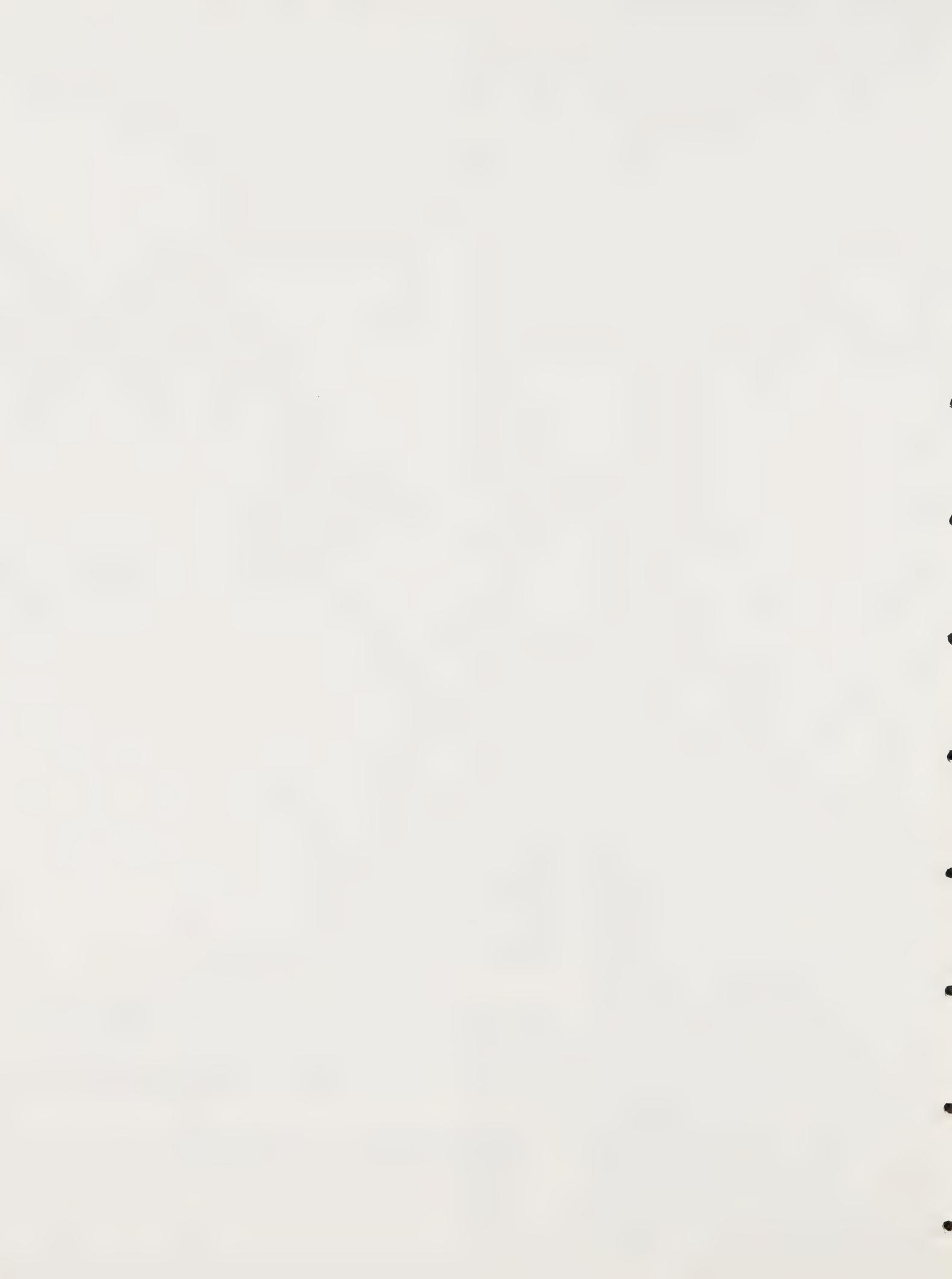


Figure 5-5



HUNTINGTON BEACH CALIFORNIA  
PLANNING DEPARTMENT

Signal Land Preliminary Master Plan Of Bolsa Chica



**State Resources Agency Conceptual Plan A  
Highway 1 Rerouted Without Bridge**

HUNTINGTON BEACH CALIFORNIA  
PLANNING DEPARTMENT



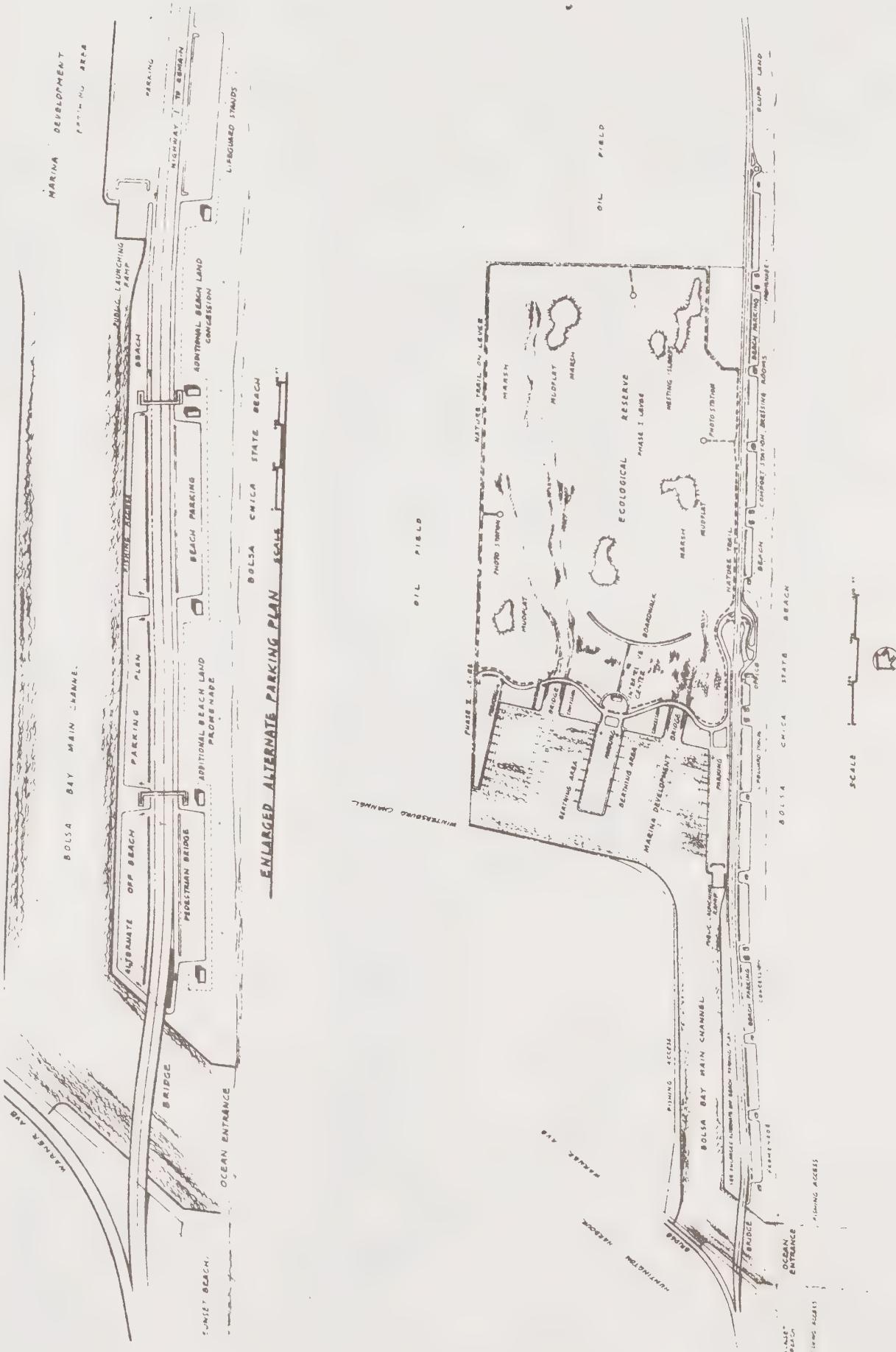
Figure 5-6





## State Resources Agency Conceptual Plan B Highway 1 With Bridge

Figure 5-7



1. To protect, enhance, and restore the natural resources of the Coast.
2. To protect, enhance, and restore the man made resources of the Coast (the special communities and neighborhoods that have unique cultural, historic, and aesthetic qualities).
3. Give priority to coastal-dependent development (uses of land and water that by their very nature require coastal sites over other development on the Coast).
4. Maximize access to the Coast for people of all income ranges, consistent with the protection of coastal resources.
5. Encourage orderly, balanced development that avoids wasteful sprawl by concentrating new growth in already developed areas with adequate public services or in other areas near major employment centers consistent with resource protection policies.

The first objective is exemplified in the Coastal Plan's proposed policies pertaining to estuaries and wetlands, which reads: "All remaining coastal estuaries and wetlands and buffer areas necessary to protect their water areas, vegetation, water fowl, fish, and other wildlife values shall be preserved, enhanced and where possible, restored."

The proposed Coastal Plan has identified the Bolsa Chica Bay as having significant restoration potential and has given a high priority for the public purchase of 560 acres with the Bay area. The primary reason for public acquisition is to protect and restore wetlands and scenic open space. The purpose of the Coastal Plan policy appears to be in direct conflict with the State Resources Agency's desire to construct an ocean cut and public marina south of Warner Avenue, as well as with Signal Properties, Inc., preliminary master plan for an aquatic residential complex. This position also would appear to question the Bolsa Chica Bay land settlement agreement between Signal Properties, Inc., and the State Lands Commission. Future expansion of waterways and boating facilities into Bolsa Chica Bay will not be decided until the basic issue of development is resolved.

#### 5.6 Waterway Capacity

An area that has not been adequately studied deals with the question of "how many boats can the existing and proposed waterways within the Sunset-Bolsa Chica Bay accommodate?" Boat capacity projections would depend to a large extent upon improvement of ocean access and the type of development in Bolsa Chica Bay. If ocean access is provided south of Warner Avenue, will the ocean access at Anaheim Bay



remain open to the public? The number of sail boats and power boats will need to be projected in order to establish the congestion that could occur in the waterway channel leading from the ocean to the Harbor area.

It is estimated that there is in excess of 2500 boats berthed in Huntington Harbour and 300 in Sunset Aquatic Park. It is anticipated that the number of boats in these two areas will increase to near 3000. The proposed State Marina in Bolsa Chica Bay is planned to accommodate 1800 berths, and a launching ramp for an estimated 200 boats per day. An additional 2000 berths may be possible with the Signal Properties development. Present projections show an excess of 7000 boats in the waterways when the area is totally developed.

#### 5.7        The Huntington Harbour Waterway Environmental Impact Review

The City's Department of Environmental Resources coordinated the preparation of an in-depth environmental analysis of the existing Huntington Harbour waterways. The Environmental Impact Review came about as the result of a ruling by the State Lands Commission that prohibited further construction of boat slips along State waterways in Huntington Harbour until an environmental assessment is completed.

A number of governmental agencies and private property owners have participated in the study. An environmental consulting firm prepared the document which touched on a wide range of topics. Included in the document are discussions on water quality of the channels, boat capacity of the harbor, and an analysis of the marine life, as well as a motor vehicle traffic analysis along the arterial street providing access into Huntington Harbour.

The Sunset-Bolsa Chica Gap will continue to be an important planning area, not only to the residents of the City of Huntington Beach, but also to all the residents of California. The City should pursue a course of action that will insure that before any development takes place careful consideration be given to balancing the social, economic and environmental concerns of the area. The recommendations that are presented in Section 7.0 of this background report are directed toward accomplishing this balance.



**section 6  
airports**





## 6.0

### AIR TRANSPORTATION

Air transportation operations, both at major airline airports and general aviation airports, are forecasted to increase dramatically over the next fifteen years. Figure 6-1 shows projected increases in the number of general aviation aircraft, by county, within the Southern California Association of Governments (SCAG) Planning Area.

The nearest airports outside Huntington Beach serving general aviation aircraft are the Orange County Airport, surrounded by the cities of Costa Mesa, Newport Beach and Irvine, and the Long Beach Municipal Airport located approximately ten miles from Huntington Beach in the City of Long Beach. Both airports are at or near capacity. Orange County Airport has limited space for expansion, while Long Beach Municipal Airport physically can provide increased facilities but presently has no plans to do so.



Figure 6-1  
GENERAL AVIATION BASED AIRCRAFT FORECASTS\* BY COUNTY

COUNTY	1972		1985	
	Number of Aircraft Served by Airports in County	County Aircraft Demand	Number of Aircraft Served by Airports in County	Number of Aircraft Served by Airports in County
Imperial	182	465	460	
Los Angeles	4,624	10,295	9,445	
Orange	1,305	3,140	2,450	
Riverside	787	1,315	1,795	
San Bernardino	1,141	1,765	2,630	
Ventura	573	1,190	1,425	
SCAG Region Total	8,612	18,170	18,205	

\*The historical 1972 figures have been obtained from Federal Aviation Administration data. The 1985 forecasts are from the California Division of Aeronautics. (At this time the Division's forecasts have been developed only for 1985 and 2000.) The 1990 county demand forecasts are expected to be 10% above the 1985 forecasts shown.

#### 6.1 SCAG Regional Airport System

The executive Committee of SCAG formally adopted the regional airport system plan in December, 1973. The report identifies existing airports that have regional significance. The report defines regional significance as airports having an air transportation function which transcends the immediate area or community in which the airport is located. For an airport to be designated as having regional significance, it must fall into one or more of the following categories:

1. Airline airports serving more than 10,000 annual passengers.
2. General aviation airports having more than 100 based aircraft, or more than 25,000 annual itinerant aircraft operations, or more than 35,000 annual local aircraft operations.
3. All active military airports.

The plan identifies thirty-one general aviation airports.



as having regional significance. The plan points out that these thirty-two general aviation airports serve most of the general aviation demand in the SCAG planning area, with nearly all the demand in the urban areas. The plan points out closure or a substantial decrease in capacity of any of them would have a widespread impact upon other airports in the system. The regional airport plan also points out the following concerns in regard to general aviation airports: Every effort must be exerted to assure that all existing general aviation airports, particularly those deemed to have regional significance, remain part of the future airport system.

If conflicts should arise in the planning, developing or operation of the general aviation portion of the regional system, priority normally should be given to regionally significant airports over locally significant ones and to publicly owned, publicly used airports over privately owned, publicly used ones.

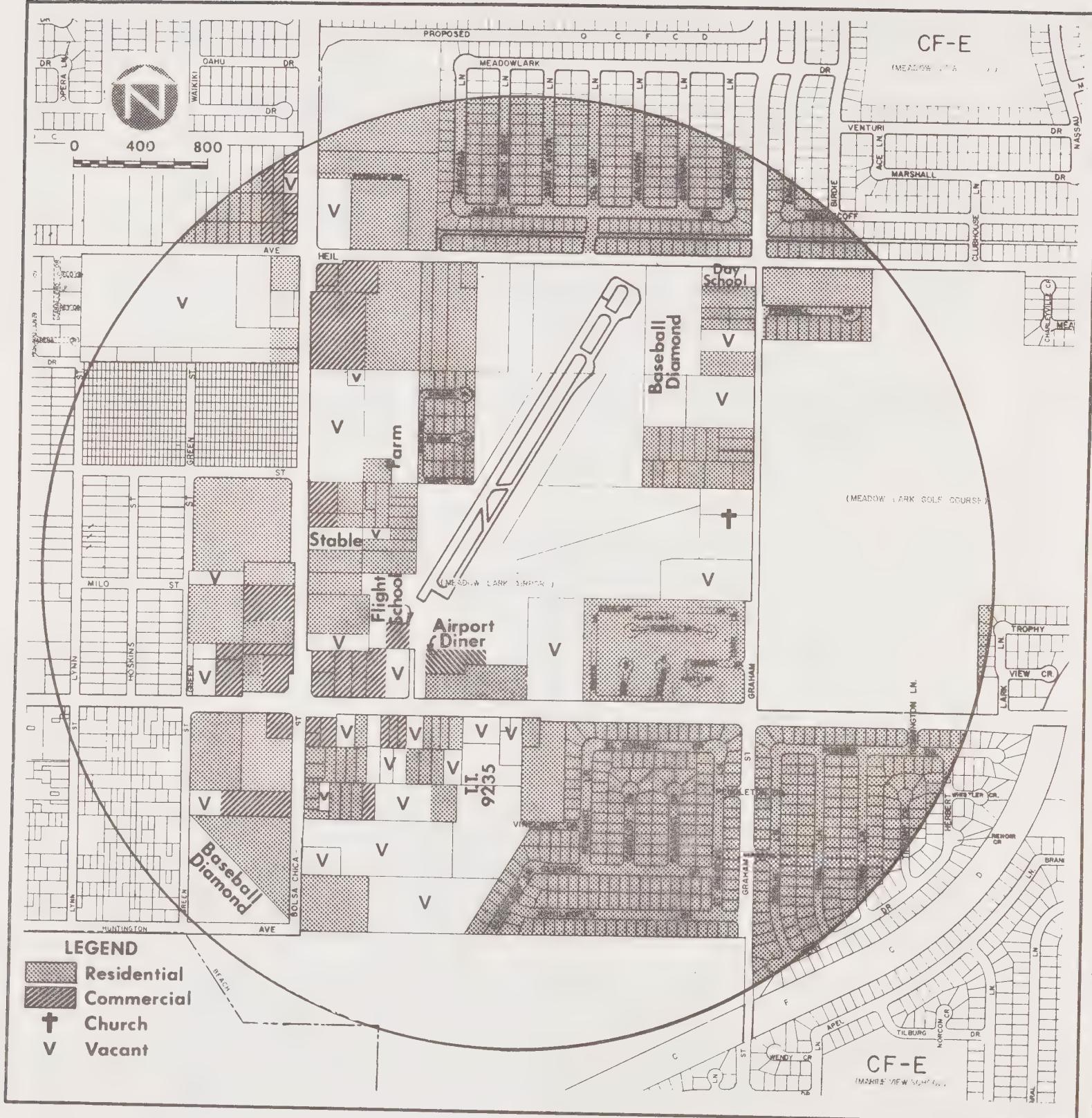
## 6.2 Meadowlark Airport

Meadowlark Airport is located within the City of Huntington Beach between Warner and Heil Avenues just east of Bolsa Chica Street on approximately eighty acres of land (see Figure 6-2). The airport is privately owned and is classified as a general aviation facility. The SCAG regional airport plan has designated Meadowlark Airport as having Regional Significance. The plan gives Meadowlark a limited development (LD) classification due to air-space conflicts with other airports (Long Beach Municipal Airport and Los Alamitos Naval Air Station)

Meadowlark presently accommodates approximately 144 based aircraft which are primarily single-engine although some light two-engine aircraft are based at the airport. Aviation services and facilities include on-site airport management, fuel and oil facilities, tiedown areas, rental hangars, flight training, aircraft sales and services, aircraft maintenance and aircraft parts and accessories. Other accommodations include a small restaurant, public restrooms and automobile parking areas.

The physical facilities of the airport consist of one asphalt runway, 2070' x 36' with a runway gradient of 1.0% and runway heading of 01/19. In addition, there is a 220' displaced threshold on the northern end of the runway plus a 10' steel and plywood blast fence located north of the displaced threshold. Field elevation is 30 MSL. There is a diagonal, shorter runway which is closed and now used for tiedowns. The runway is equipped with lights which are operated from dusk until 10:00 p.m. There are two 38' pole lines at the north end of the runway. One line is 330' from the threshold on the Runway 19 and the second line is 430' from the threshold of Runway 19. The airport has two underground fuel tanks; one 10,000 gallon capacity and the second 5,000 gallons.





**Figure 6-2**



# Meadowlark Airport And Existing Land Uses

huntington beach planning department

Meadowlark Airport has a General Plan Land Use Designation of Low Density. The City has allowed residential and commercial development to occur on all sides of the airport. The continued development around the airport raises questions concerning noise levels and safety. Also, there has been speculation that the airport may be forced to close due to increased property tax.

### 6.3        Airport Studies

Airport proposals have long been studied in the City of Huntington Beach as a possible vehicle for increasing City revenues. Two airport proposals have been studied within the last few years.

#### 6.3.1      Recreational Airpark

In October, 1970, the Planning Department unveiled a proposal for the establishment of a Recreational Airpark. The Airpark was proposed to be located near Ellis Avenue and Gothard Street. An airpark is characterized in SCAG's Regional Airport System Report of the Citizens Hearing Board as:

- . providing recreation, sport, and training facilities for private aviation.
- . intending to relieve General Airports for business-oriented and other flying that requires more expensive services.
- . generally clear of urban areas and free of obstructions.
- . remotely located, often in or near recreation areas, on land with low base values so as to minimize the cost of this element of personal aircraft ownership.
- . located outside or below high-density controlled airspace.
- . having minimal or no instrument aids.

The Airpark Study identified various benefits that the City would realize from construction of the airport. These benefits consisted of:

1. Increased Tax Base.
2. Increase in Surrounding Land Values
3. Increased Employment



4. Industrial Development
5. Revenue-Producing Transportation Services
6. Support to Downtown Redevelopment

In March of 1971, a joint meeting of the City Council, Planning Commission and the Airport Committee was held to discuss the airpark proposal. It was decided that the proposed location was not suited for an airpark due to land use conflicts. The proposed flight pattern would have required aircraft to fly over residential land uses as well as a proposed school site. Aircraft would also fly over Huntington Central Park bringing it into conflict with the City's desire to provide a place where residents could go to relax and enjoy the natural setting of the park.

#### 6.3.2 City/County Meadowlark Airport Study

In March, 1972, John Turner, Operator of Meadowlark Airport, offered to sell to the County of Orange his twenty-five year master lease for the Meadowlark Airport of which two years, nine months remained. Mr. Turner stated that it would no longer be economically feasible, from a property tax standpoint, to continue operation of Meadowlark Airport as a privately-owned, privately-financed airport open to the general public.

As a result of the offer of sale, the County of Orange undertook the preparation of a study program that set as its goals the following:

1. To determine the feasibility of acquiring ownership of Meadowlark Airport leased properties and desirable contiguous properties for the purpose of developing a viable general aviation airport and recreational area.
2. To develop the general requirements of a joint powers agreement between the City of Huntington Beach and the County of Orange for the purpose of redevelopment and operation of Meadowlark Airport and associated recreational areas.
3. To develop general requirements for compatible land use and commercial development in the vicinity of the airport recreational area.



4. To develop general requirements for a socio-economic and environmental impact study of the airport/recreational area/commercial development plans.
5. To determine the requirements and means of obtaining funding for Airport Master Plan Study and Airport Redevelopment.

The City Staff working with the County of Orange set about to prepare a preliminary plan that called for the expansion and redevelopment of Meadowlark Airport.

The City Council held a discussion on the City/County Meadowlark Airport Study in January, 1973 and decided not to participate in the study. The Council felt that the airport was not compatible with the residential land uses surrounding Meadowlark.

#### 6.4 Heliports

In recent years the helicopter has assumed a wide range of activities due primarily to its capability to land and take off vertically from small areas. These activities include but are not limited to police patrol, air ambulance, executive and short distance business trips and public transportation services.

##### 6.4.1 Heliport Design Guide

The Heliport Design Guide is a publication prepared by the Federal Aviation Administration (FAA) in cooperation with governmental, civil, military, and industrial groups that establishes recommended criteria for the planning, design and construction of heliports. In addition to planning, design and construction criteria, the publication provides for a heliport classification system as follows:

Class I	- private
Class II	- public (small)
Class III	- public (large)

Heliports are further subclassified in accordance with their available support facilities:

Subclass A	- minimum support facilities: no building, maintenance or fueling
Subclass B	- limited support facilities: no maintenance or fueling
Subclass C	- complete support facilities: building, maintenance and fueling facilities



#### 6.4.2 State Public Utilities Code

The California Public Utilities Code requires that developers for both public and private heliports or helistops secure a permit from the State prior to construction of such facilities. The developer is required to meet specific design criteria established by the California Department of Aeronautics based on the FAA Heliport Design Guide which is attached to the State heliport regulations as an appendix.

#### 6.4.3 City Requirements

The City of Huntington Beach permits the development of heliports subject to approval of a Conditional Use Permit. The City's ordinance does not provide for any set requirements for heliport development. Site development is required to conform to base district zoning standards, as well as any additional conditions laid down by the Planning Commission that are more restrictive than the base district. Site locations and design standards would most likely be required to comply with the guidelines found in the Heliport Design Guide.

Huntington Beach presently has five heliport sites. Figure 6-3 shows where the sites are located. These heliport sites fall within the FAA Class I or Class II classification and range from Subclass A (McDonnell-Douglas and the Civic Center) to Subclass C (Police Heliport).

### 6.5 Future of Air Transportation in Huntington Beach

#### 6.5.1 Airports

The Circulation Element Background Report has identified recent airport study proposals for the City of Huntington Beach. Vacant land in Huntington Beach is rapidly developing, lessening the potential for future airport sites. Also, the only existing airport in Huntington Beach, Meadowlark Airport, is considered to have little or no potential for expansion due to surrounding residential and commercial land uses.

Continued general aviation air facilities in the community will depend on the City's willingness to undertake a study that will identify a potential airport site and



- 1** McDonnell-Douglas Helistop
- 2** Meadowlark Airport
- 3** Police Heliport
- 4** Signal Oil Heliport
- 5** Civic Center Helistop



Figure 6-3



**Heliports and Helistops Within  
the City of Huntington Beach**  
**huntington beach planning department**

provide the guidelines for protecting the site and surrounding land from residential encroachment. If the City does not wish to pursue the selection and development of a general aviation airport site in the City, it should support development of general aviation sites outside the City.

#### 6.5.2 Heliports

As helicopter use increases in popularity and uses become more diverse the need for development guidelines for the City will become more apparent. The City is presently planning for major redevelopment of its downtown area that would have regional significance. High rise buildings that may be built within this area may find that a helistop would increase the accessibility to these types of structures as well as to the general area.

Also, approximately 60 percent of the City's industrially zoned land is presently vacant. Industrial land is an ideal location for helistop sites. Many industries use helicopters to transport executives and VIP's between plant locations and airports. As the City's vacant industrial land develops, there should exist sufficient City guidelines to allow for the development of heliports.

Another potential area for heliport development may exist in conjunction with the development of a multi-modal transportation center within the City. Such a center would provide a focal point for various types of transportation services. (MRT, buses, taxis, car rentals, etc.) The potential of a heliport site should be considered during the initial feasibility study of such a transportation center.



**section 7  
recommendations**





## 7.0

### RECOMMENDATIONS

The review of the current transportation modes and services within the City indicates that there is still much work to be done before achieving a balanced transportation system. Huntington Beach has been characteristic of the larger Southern California area, by its almost total reliance upon the automobile as the primary means of transportation.

Since the establishment of OCTD the City has moved toward a spirit of cooperation with the Transit District. This cooperation is reflected in the fixed bus routes presently penetrating the City and the establishment of the temporary Park-N-Ride facility at McDonnell-Douglas Space Systems Center.

The City must continue to pursue transportation policies that are directed toward providing members of the community with the widest range of transportation systems that will improve their mobility. The following recommendations in this section provide the necessary guidance for future implementation of the City's Circulation Plan.



## 7.1 Arterial Streets and Highways

The arterial streets and highways analysis presented in this document is based on traffic studies carried out by a number of traffic consulting firms. These studies were of a limited nature and did not investigate the traffic needs of the entire community. There also have been a number of changes in land use designations throughout the City since many of these traffic studies were conducted. Also, the unincorporated territory known as Bolsa Chica has no comprehensive land use plan, making it premature to project traffic patterns or volumes within the area.

The following recommendations are designed to improve the future circulation patterns within the City.

### 7.1.1 Recommendations

1. Adopt the proposed Circulation Plan of Arterial Streets and Highways (Figure 3-10) to replace the existing Master Plan of Arterial Streets and Highways.
2. Conduct a feasibility study in cooperation with the Data Processing staff to determine the cost/benefits that could be derived from instituting a computerized traffic analysis of the City's entire arterial street system.
3. Revise the City's select street map to reflect those arterial streets that are shown on the proposed Circulation Plan of Arterial Streets and Highways.
4. Provide adequate ingress and egress to industrial and commercial land uses as well as insure that residential areas are protected.

## 7.2 Public Transportation Modes and Services

The public transportation service in the City of Huntington Beach has improved tremendously within the last few years. As indicated in this background report, many new bus routes have penetrated the City and a temporary Park-N-Ride facility has been established. There are still many service improvements that are needed in the City. Working closely with OCTD to implement needed service improvements will assure the City of Huntington Beach of providing its residents with an effective as well as balanced transportation system.



### 7.2.1 Recommendations

#### Bus Programs

1. Continue to work with OCTD in support of expanding the long haul fixed bus route service into the City.
2. Encourage OCTD to provide fixed bus route service within the City with reduced headway times.
3. Working with OCTD, undertake a land use feasibility study for a future bus terminal site within Huntington Beach.

#### Park-N-Ride Program

1. Work with OCTD in carrying out a feasibility study for the establishment of a permanent Park-N-Ride facility in the City.
2. Encourage OCTD to provide jitney service from the Park-N-Ride facility to City employment centers.

#### Dial-A-Ride Program

1. Pursue the Dial-A-Ride Program in order to provide residents with an economical and personalized transportation service.

#### Community Fixed Route

1. Pursue the community fixed route bus service only if the Dial-A-Ride Program is discontinued by OCTD.

#### Mass Rapid Transit

1. Work with OCTD, Southern Pacific Railroad and adjoining property owners to protect the Southern Pacific Railroad line that traverses the City as a future mass rapid transit corridor.
2. Work in conjunction with OCTD and the Multi-Modal Transportation Committee in the preparation of a feasibility study for the establishment of a multi-modal transportation facility in the City of Huntington Beach.
3. Actively monitor the development of the Orange County Multi-Modal Transportation Study.



## 7.3 Water Transportation

The Huntington Harbour-Anaheim Bay marine development serves the recreational needs of many boating enthusiasts in the City of Huntington Beach. It is important that the existing waterways are protected to ensure a high level of environmental quality and that the planning of any future waterways within Bolsa Chica Bay protects the unique wetland and estuary features of the area. The following recommendations are designed to protect the recreational character of the existing waterways, and to ensure that any future water-oriented development within unincorporated Bolsa Chica is comprehensively planned.

### 7.3.1 Recommendations

1. Monitor State agencies concerning future ocean access points into the Sunset-Bolsa Chica Bay.
2. Participate with State and County agencies in the planning of future waterways in Bolsa Chica Bay.
3. Require a comprehensive plan of any water-oriented development that may occur within the unincorporated areas surrounding Bolsa Chica Bay upon the area being incorporated into the City.

## 7.4 Airport Facilities

Rapid land development in the City has lessened the potential for future airport sites. Airport facilities depend upon sufficient land to provide enough clearance to assure a minimum amount of disturbance to residential and commercial land uses.

Helicopter development has increased in recent years and is projected to continue to grow in popularity. The unique maneuverability of the helicopter enables it to land and take off from small areas. As the redevelopment of the downtown area occurs, as industrial land is developed and as public and quasi-public facilities expand (transportation center, hospitals, etc.) the desirability of heliports/helistops within the City will increase. The following recommendations are presented for general aviation facilities and heliport development within the City of Huntington Beach.



#### 7.4.1 Recommendations

1. Support the development of General Aviation Airport Facilities within northwest Orange County that reflect the needs of the community.
2. Adopt specific heliport/helistop development guidelines based upon the FAA Heliport Design Guide for incorporation into the City Ordinance Code.





U.C. BERKELEY LIBRARIES



C124880815

